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ABSTRACT

Baccalaureate institutions are an essential part of the educational process for persons earning science and engineering doctorates. This report summarizes data on the baccalaureate institutions reported by persons completing doctorates from 1991 through 1995. It provides an institutional context for examining this aspect of the educational pipeline. Sections include Undergraduate Origins in Foreign Institutions, Undergraduate Origins by Type of U.S. Institution, and Baccalaureate Origins of Women and Racial/Ethnic Groups. Appendices contain technical notes, detailed statistical tables, and a bibliography. (JRH)

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Undergraduate Origins of Recent (1991-95) Science and Engineering Doctorate Recipients

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Special Report

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Division of Science Resources Studies
Directorate for Social, Behavioral and Economic Sciences

National Science Foundation

NSF 96-334

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Undergraduate Origins of Recent (1991-95) Science and Engineering Doctorate Recipients

Special Report

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Directorate for Social, Behavioral and Economic Sciences

National Science Foundation

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FOREWORD

Baccalaureate institutions are an essential part of the educational process for persons earning science and engineering (S&E) doctorates. This report summarizes data on the baccalaureate institutions reported by persons completing doctorates from 1991 through 1995. It provides an institutional context for examining this aspect of the educational pipeline.

Jeanne E. Griffith
Director
Division of
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CONTENTS

Section ***Page***

Introduction 1
Overview 1
Definitions 1
Source of Data 2

Undergraduate Origins in Foreign Institutions 3
Role of Foreign Institutions by S&E Field 3
Foreign Citizen S&Es Who Earned Both Baccalaureate and Doctorate in the United States 4

Undergraduate Origins by Type of U.S. Institution 5
Nationally Prominent Institutions from Which S&E Doctorate Recipients Had Received Baccalaureate Education 5
Carnegie Classification of U.S. Institutions by S&E Field of Study 5
Role of "Research Universities" in the Baccalaureate Education of S&E Doctorate Recipients 7
Role of "Doctoral Universities" in the Baccalaureate Education of S&E Doctorate Recipients 8
Role of "Master's Colleges and Universities" in the Baccalaureate Education of S&E Doctorate Recipients 9
Role of "Baccalaureate Colleges" in the Baccalaureate Education of S&E Doctorate Recipients 9
Role of "Specialized Institutions" in the Baccalaureate Education of S&E Doctorate Recipients 9
Role of 2-year Colleges in the Undergraduate Education of S&E Doctorate Recipients 10

Baccalaureate Origins of Women and Racial/Ethnic Groups 11
Baccalaureate Origins of Women S&E Doctorate Recipients 11
Baccalaureate Origins by Racial/Ethnic Group of S&E Doctorate Recipients 11
Role of Historically Black Colleges and Universities (HBCUs) in the Baccalaureate Education of Black S&E Doctorate Recipients 13

Appendix A: Technical Notes 15

Appendix B: Detailed Statistical Tables 19

Appendix C: Bibliography 89

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INTRODUCTION

Currently, only about 325 universities in the United States provide doctorate-level education in science and engineering (S&E), but other institutions provide students their foundation in science or engineering:

- Almost 2,200 4-year colleges that offer undergraduate S&E degrees;
- About 1,400 2-year schools that offer S&E instruction and/or training in S&E technologies;
- Over 23,000 high schools that provide mathematics and science courses; and
- Numerous high schools, colleges, and universities in foreign countries that educate the many students who came to the United States for their graduate degrees.[1]

Given their significance, these institutions have been studied and reported on for over 50 years (see appendix C, Bibliography).[2] This report provides additional knowledge, focusing particularly on those institutions that awarded baccalaureates to students who later received doctorates in S&E fields.

OVERVIEW

Because undergraduate education is the foundation for graduate studies, it is important to know where our Nation's S&E doctorate recipients are receiving their undergraduate training. Specifically, this report addresses the following broad questions:

- What are the undergraduate origins of S&E doctorate holders? What role do foreign institutions play?
- Which educational institutions contribute most to the undergraduate education of recent S&E doctorate recipients?
- What proportion of S&E doctorate holders had earned their baccalaureate at a doctorate granting institution?
- What roles do the various types of baccalaureate origin institutions play in S&E predoctorate education?
- What role do 2-year colleges play in the undergraduate education of persons who later earn an S&E doctorate?
- Are the top-ranking baccalaureate institutions of women and racial/ethnic minorities the same as those of men and whites?

These and related questions are explored in this report.

DEFINITIONS

Recent doctorate recipients are defined as persons who earned doctorates in S&E fields from U.S. universities in the academic years ending in June 1991 through 1995. Doctorate recipients in these five years were combined into one cohort, or unit of analysis, to minimize the possibility of overemphasizing any unusual circumstances from any single year.

The **S&E fields of study**, as defined by the National Science Foundation (NSF), include the natural sciences (physical sciences, biological sciences, mathematics, computer sciences), social science/psychology, and engineering. The specific fields are listed in table 1 in Appendix B, Detailed Statistical Tables. Note that engineering technology and medical degrees are not included.

---

[1] Data on numbers of institutions are from the National Center for Education Statistics, Digest of Education Statistics 1995 (Washington, D. C.: Supt. of Documents, U.S. Government Printing Office, 1995) p. 14.

[2] Many of the reports cited in the Bibliography focus on the "productivity" of baccalaureate institutions (i.e., the proportion of the total bachelor's degree recipients from that institution, or group of institutions, who go on to earn doctorates within a certain time frame). This approach adjusts for institutional size to some extent.

A **baccalaureate-origin institution** is defined as the college or university from which an S&E doctorate recipient had earned a bachelor's degree. Excluded are any other undergraduate institutions that the student may have attended before receiving a baccalaureate.

The **Carnegie Classification of Institutions** was used to group types of institutions for this analysis. The Carnegie Commission on Higher Education has periodically (1970, 1976, 1987, and 1994) classified institutions of higher education in the United States by the range of programs and/or degrees offered, enrollment size, and amount of Federal funds received for research. The 1994 Carnegie Classification is used in this report to study the baccalaureate origins of scientists and engineers who recently received their doctorate from U.S. institutions. The changes to the 1994 Carnegie Classification were such that this analysis is not comparable to the earlier data by Carnegie Classifications in the earlier report, Undergraduate Origins of Recent Science and Engineering Doctorate Recipients (NSF 92-332). See Appendix A, Technical Notes, for more detailed information.

Source of Data

The source of the data used in this report is the Survey of Earned Doctorates (SED), awarded in the United States. The survey questionnaires are completed by approximately 94 to 95 percent of all doctorate recipients as they finish the requirements for their degree. A detailed description of the survey and possible sources of error are provided in Appendix A, Technical Notes.

Undergraduate Origins in Foreign Institutions

Most recipients of S&E doctorates from U.S. universities also receive their undergraduate education at U.S. institutions. Foreign institutions do, however, play a significant role. Therefore, at the beginning of this section, brief consideration is given to the extent to which foreign institutions have provided the undergraduate education of S&E doctorate recipients. Baccalaureate origins in U.S. institutions are then treated in more detail.

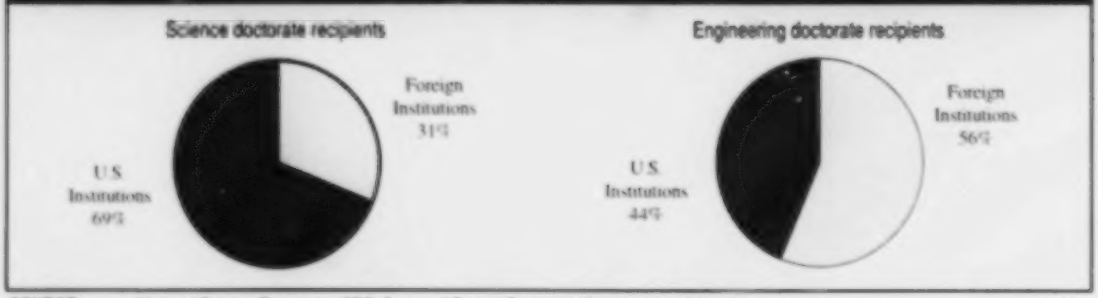
Universities in the United States and other major Western nations house advanced training facilities and employ distinguished scholars. Consequently, many students from foreign countries come to the United States to obtain graduate S&E training. In 1995, 40 percent of all S&E doctorate recipients from U.S. universities were citizens of foreign countries; a decade earlier, the comparable figure was 27 percent.[3] Given the growing international nature of the scientific and technological community, it is not surprising that over one-third of all recipients of S&E doctorates awarded by U.S. universities had received their baccalaureates from foreign institutions.

Role of Foreign Institutions by S&E Field

Considerably more **engineering** doctorate holders received their undergraduate education in foreign institutions than did **science** doctorate holders: 56 percent versus 31 percent (chart 1). In several science fields, however, the proportion of foreign baccalaureate holders was significantly higher than the average: Mathematics (52 percent), computer science (49 percent), agriculture (48 percent), physics (43 percent), chemistry (37 percent), and social science (35 percent) (table 1).

[3] Susan T. Hill, "Non-U.S. Citizens Were 40 Percent of S&E Doctorate Recipients from U.S. Universities in 1995" (Arlington, VA.: National Science Foundation, 1996), NSF 96-315, p.1. More detailed data are also available in: Susan T. Hill, *Selected Data on Science and Engineering Doctorates: 1995* (Arlington, VA.: National Science Foundation, 1996), NSF 96-303.

Chart 1. U.S. versus foreign baccalaureate origins of recent science and engineering doctorate recipients



SOURCE: National Science Foundation/SRS, Survey of Earned Doctorates for the years 1991-95.

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Foreign Citizen Scientists and Engineers (S&Es) Who Earned Both Baccalaureate and Doctorate in the United States

Most foreign citizens who earned S&E doctorates in the United States completed the lower levels of education in their native countries. Some foreign S&E doctorate holders, however, had received not only their doctorate in the United States, but also their baccalaureate. As would be expected, a higher proportion of foreign S&E doctorate recipients with permanent resident visas than with temporary visas (17 versus 7 percent) had earned their baccalaureate in U.S. institutions.

Among foreign citizens who received their S&E doctorate in the United States, those of certain countries had high proportions who also earned their baccalaureate in the United States. Iran, the Caribbean Islands, (West) Germany, Hong Kong, Japan, Lebanon, and Nigeria had high proportions of S&E doctorates who received all of their college education (baccalaureate through doctorate) in the United States (table 2 in Appendix B). Reasons for those high proportions vary by country and include foreign government programs promoting mobility as well as the unavailability of comparable programs in the home countries.

Special tabulations for 1994 Ph.D. recipients provide a picture of the foreign **institutions** that play a prominent role in the baccalaureate education of foreign citizens who came to the United States to earn a research doctorate. The top 25 foreign institutions with large numbers of graduates who went on to earn a doctorate in the U.S. are shown in table 20 in Appendix B. All of these top universities are in (the People's Republic of) China, India, Korea, or Taiwan. Together these top 25 institutions accounted for 31 percent of the baccalaureate-origins of 1994 foreign Ph.D. recipients in S&E.[5]

[4] Robert Morgan and Elinor Barber, *Boon or Bane* (New York: Institute for International Education, 1988).

[5] For a list of all baccalaureate-origin institutions in foreign countries of 1994 S&E doctorate recipients, see table 19 in Appendix B.

IMPACT OF FOREIGN STUDENTS

In graduate schools of engineering, faculty often teach students who have been educated outside the United States. What is the impact of large numbers of students from foreign countries in the classroom? A recent report, Boon or Bane, determined that faculty "did not to any great extent take the national composition of their graduate students into account in defining the content of the subject matter to be taught." The authors reported that the baccalaureate educational background of foreign students "provides in many instances a high level of theoretical sophistication." In terms of communication, however, almost half of faculty reported they had "made special efforts to accommodate the foreign students' difficulties in oral comprehension."[4]

Undergraduate Origins by Type of U.S. Institution

Recent S&E doctorate recipients cited over 1,400 U.S. institutions as the sources of their baccalaureates. These institutions constitute almost three-quarters of the Nation's approximately 2,200 colleges and universities that award bachelor's degrees.

Nationally Prominent Institutions from Which S&E Doctorate Recipients Had Received Baccalaureate Education

Twenty-five U.S. institutions were especially prominent among those that granted baccalaureates to students who eventually earned their S&E doctorate. Together, the 25 institutions accounted for the baccalaureate education of one-quarter of those persons who received S&E doctorates in the United States between 1991 and 1995 (table 3). Individua'ly, each of the 25 top-ranked institutions had provided the undergraduate education of at least 500 graduate students who received their S&E doctorate in that period.

The University of California at Berkeley was by far the largest provider of U.S. undergraduate education of recent S&E doctorate recipients, followed by University of Illinois at Urbana, Cornell University, and University of Michigan (table 3).

All institutions that provided the baccalaureate education of 10 or more recent S&E doctorates are listed in Appendix B, table 18.

Carnegie Classification of U.S. Institutions by S&E Field of Study

The 1994 Carnegie Classification system was used in this report whereby the 4-year institutions in the United States that awarded baccalaureates were grouped into the following categories:

- Research universities (number=125),
- Doctoral universities (number=111),
- Master's colleges and universities (number=529),
- Baccalaureate colleges (number=637), and
- Specialized institutions (number=690)

Appendix A, Technical Notes, provides detailed information on these Carnegie Classification groups.

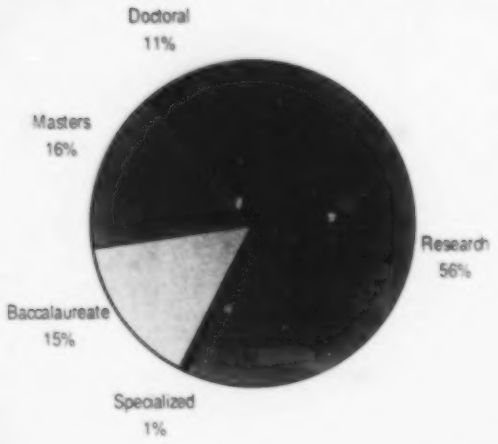
Table 4 provides an overview of the role of each type of Carnegie Classification group in the baccalaureate-origins of S&E doctorate recipients from 1991 to 1995, by field of study. The 125 research universities awarded 56 percent of the bachelor's degrees of S&E doctorate recipients, and the 111 doctoral universities awarded another 11 percent. Altogether the 236 institutions (research plus doctoral universities categories) that offer doctoral S&E programs accounted for 67 percent of the **baccalaureate origins** of S&E doctorate holders (chart 2). This is somewhat higher than the proportion of S&E **bachelor's degrees** awarded (54 percent) that doctorate-granting institutions accounted for in 1993.[6]

The role of each Carnegie group in the baccalaureate-origins of recent S&E doctorate holders differed markedly depending on the S&E field of doctorate awarded.[7] For example, research universities provided

[6] National Science Board, *Science and Engineering Indicators—1996*. (Arlington, VA: U.S. Government Printing Office, 1996, NSB 96-21), 2-9 and 2-10.

[7] Note that field of study refers only to the field of the doctorate. Changes in field of study from the baccalaureate to the doctorate do occur; see Susan T. Hill, *Science and Engineering Doctorates: 1960-90* (Washington, D.C.: National Science Foundation, 1991), pp. 165-66.

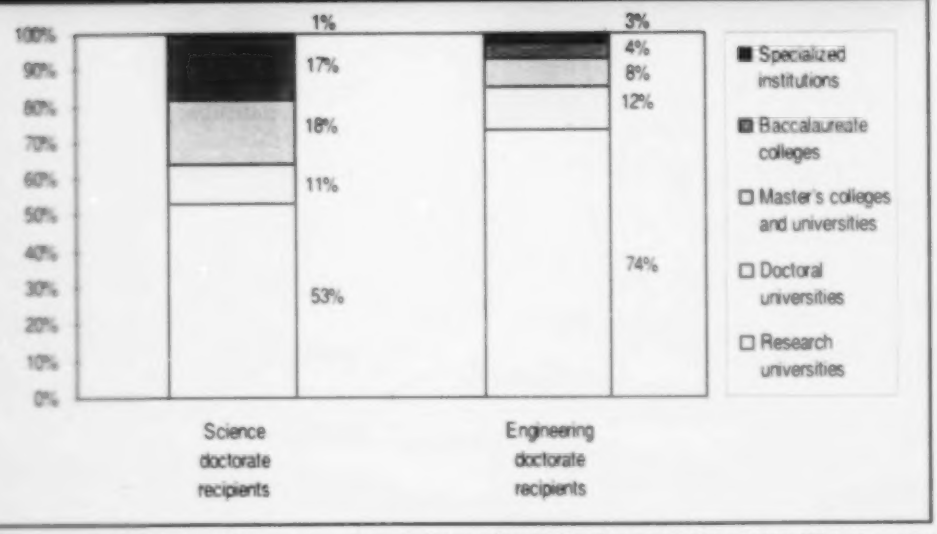
Chart 2. Baccalaureate origins in U.S. institutions of total recent science and engineering doctorate recipients, by Carnegie Classification of Institutions



NOTES: See Technical Notes for more information on the Carnegie Classification. Percentages may not add to 100 due to rounding.

SOURCE: National Science Foundation/SRS, Survey of Earned Doctorates for the years 1991-95.

Chart 3. Baccalaureate origins in U.S. institutions of recent science and engineering doctorate recipients, by Carnegie Classification of Institutions



NOTES: See Technical Notes for more information on the Carnegie Classification. Percentages may not add to 100 due to rounding.

SOURCE: National Science Foundation/SRS, Survey of Earned Doctorates for the years 1991-95.

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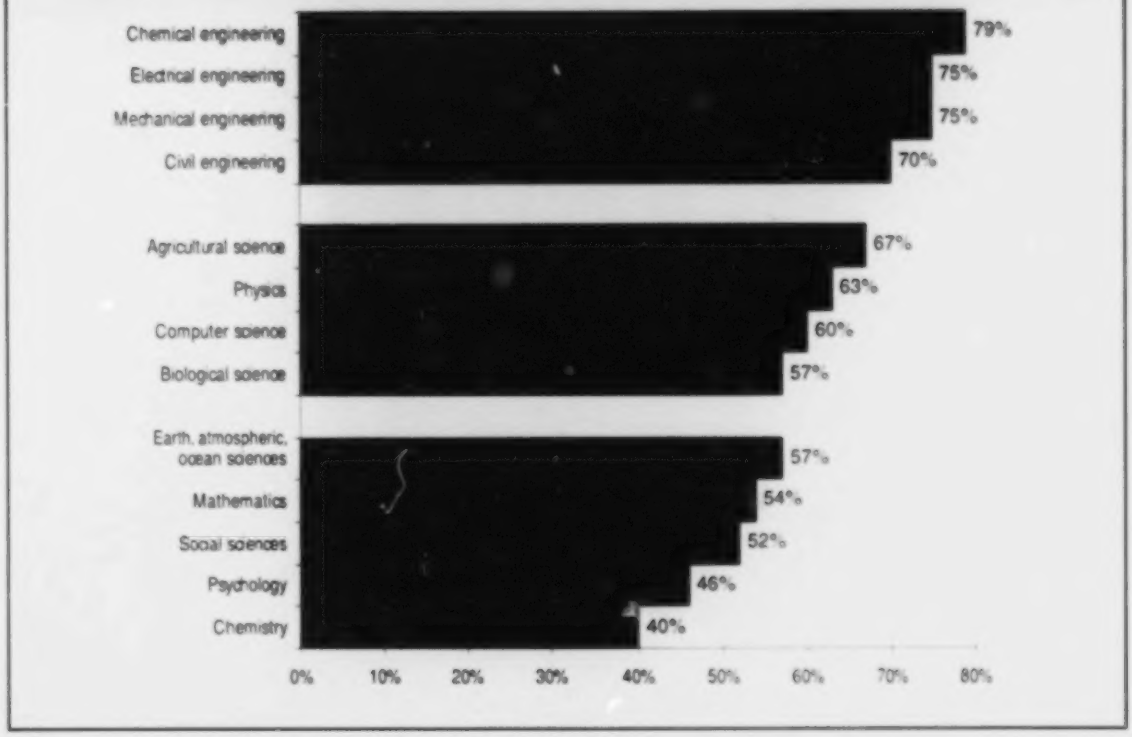
Chart 4. Percent of recent science and engineering doctorate recipients who earned their bachelor's degrees at U.S. research universities, by field of doctorate



NOTE: See Technical Notes for more information on the Carnegie Classification.

SOURCE: National Science Foundation/SRS, Survey of Earned Doctorates for the years 1991-95.

the undergraduate education of about three-fourths of the recent doctorate recipients in chemical, electrical, and mechanical engineering. But these institutions awarded baccalaureates to only 40 percent of recent chemistry doctorate recipients, who tended to have their baccalaureate origins in master's and baccalaureate institutions (table 4).

The following sections describe baccalaureate origins for S&E doctorates for each of the five kinds of institutions. A list of the top 25 (or 24, depending on an even break-point for number of degrees) institutions within each Carnegie Classification group is also provided. The role of 2-year institutions is also discussed.

Role of Research Universities in the Baccalaureate Education of S&E Doctorate Recipients

The 125 "research universities" led other institutions both in the amount of Federal support received for research and in the range of doctoral programs offered. Research universities played a central role in undergraduate S&E education, having provided the baccalaureate education of 56 percent of recent S&E doctorate holders.

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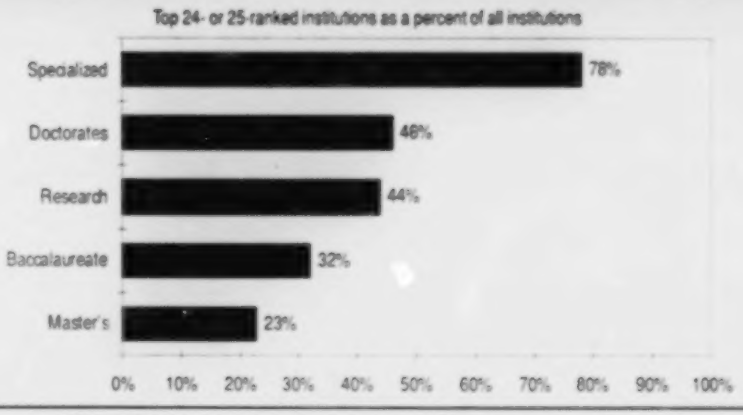
Chart 5. Concentration of baccalaureate-origin institutions of recent science and engineering doctorate recipients within each Carnegie Classification of Institutions



NOTE: See Technical Notes for more information on the Carnegie Classification.

SOURCE: National Science Foundation SRS, Survey of Earned Doctorates for the years 1991-95.

Three-fourths of recent engineering doctorate recipients had earned their bachelor's degree at research universities; the comparable figure for science doctorate recipients was about half. Scientists with recently acquired doctorates were more likely than their engineering counterparts to have earned their bachelor's degrees at master's or baccalaureate institutions (chart 3). The prominence of research universities varied by field, however, as shown in chart 4.

Of the 25 top-ranked baccalaureate institutions from which S&E doctorate holders had earned their baccalaureate (table 3), all were classified as research universities. The top 25 research universities do NOT differ from the general ranking of top 25 baccalaureate institutions nationally. Table 5 lists the top 25 research universities; together, these accounted for about 44 percent of the bachelor's degrees earned at the 125 research universities by recent S&E doctorate recipients (chart 5).

Role of Doctoral Universities in the Baccalaureate Education of S&E Doctorate Recipients

The 111 "doctoral universities" have established doctoral programs, but have fewer research programs than research-intensive institutions. Schools categorized as doctoral universities accounted for 11 percent of the baccalaureate-origins of recent S&E doctorate recipients.

The top 25 doctoral universities awarded 46 percent of the category's total S&E doctorate holders' baccalaureates (table 6).

Role of Master's Colleges and Universities in the Baccalaureate Education of S&E Doctorate Recipients

Institutions identified as "master's colleges and universities" are those that offer a liberal arts program, a professional or occupational program, and master's degrees. This category includes 529 institutions that award S&E baccalaureates.

The top 25 master's colleges and universities are dominated by the California State university system and the New York City university system, which together accounted for 12 of the top 25. The top 25 institutions awarded almost one-fourth of the S&E baccalaureates to those who later became S&E doctorate recipients (table 7).

Master's colleges and universities had conferred baccalaureates on almost 2 out of every 10 recent science doctorate recipients, twice the proportion found among recent engineering doctorate recipients (chart 3).

Role of Baccalaureate Colleges in the Baccalaureate Education of S&E Doctorate Recipients

Baccalaureate colleges are predominantly bachelor's degree-granting institutions that award more than half their degrees in liberal arts fields.

The top 25 baccalaureate colleges cited most often by recent S&E doctorate holders as their baccalaureate-origin institutions (table 8) account for 32 percent of the total number of bachelor's degrees awarded by baccalaureate institutions to those who went on to earn a doctorate.

When productivity is taken into account, several liberal arts colleges rank with research-intensive universities for number of bachelor's degree recipients who go on to earn a S&E doctorate. One report indicated that 15 of the top 25 institutions—ranked by the proportion of the baccalaureate recipients who earned doctorates in the sciences between 1951 and 1980—were liberal arts colleges.[8] Similar findings were also presented in a report on "Persistence in Higher S&E Education."[9]

By field, baccalaureate colleges provided the baccalaureate education of 15 percent of science doctorate holders, almost four times the proportion found among engineering doctorate holders (chart 3). These institutions play a significant role in the baccalaureate origins of recent doctorate recipients in chemistry, mathematics, social sciences, psychology and biological sciences (table 4).

Role of Specialized Institutions in the Baccalaureate Education of S&E Doctorate Recipients

The Nation's specialized schools cited as baccalaureate origins by S&E doctorate holders are primarily engineering or technical schools. The top 24 of these institutions granted 78 percent of the baccalaureate degrees earned by recent S&E doctorate recipients in schools of this type.

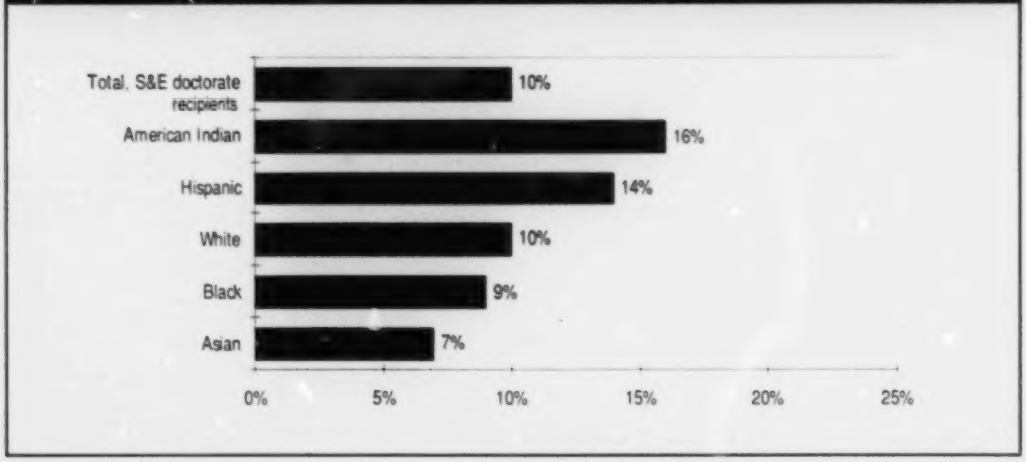
Harvey Mudd College in California headed the list of prominent specialized institutions, followed by three U.S. academies—the U.S. Military, U.S. Air Force, and U.S. Naval Academies (table 9). In terms of **S&E field,** the technical nature of specialized institutions is such that engineering doctorate holders were more likely than science doctorate holders to have attended this type of school for their undergraduate education (chart 3).

---

[8] Sam Carrier and David Davis-Van Atta, *Maintaining America's Scientific Productivity* (Oberlin, OH: Oberlin College, 1987).

[9] Betty Maxfield, *Persistence in Higher Science and Engineering S&E Education: S&E Baccalaureate to S&E Doctorate Production* (Washington, D.C.: Library of Congress, Office of Technology Assessment, 1988).

Chart 6. Percent of science and engineering doctorates who attended a 2-year college, by race ethnicity



SOURCE: National Science Foundation/SRS, Survey of Earned Doctorates for the years 1991-95.

Role of 2-year Colleges in the Undergraduate Education of S&E Doctorate Recipients

A key difference between white S&E doctorate holders versus doctorate recipients from some underrepresented minority groups is the latter's attendance at 2-year colleges. In general, Hispanics and American Indians are more likely than other groups to begin their undergraduate education in 2-year colleges.[10] Specifically, 16 percent of American Indian S&E doctorate holders had attended a 2-year college as had 14 percent of Hispanics (chart 6). In comparison, around one-tenth of both black and white S&E doctorate holders had attended a 2-year school; only 7 percent of Asians had done so. These figures may indicate that 2-year colleges are a significant part of the educational pipeline leading to an S&E doctorate for American Indians and Hispanics.

Attendance at 2-year colleges was more pronounced in certain fields of study. Recent recipients of doctorates in agriculture and psychology were more likely to have gone to 2-year colleges than were majors in other S&E fields (table 10).

[10] National Center for Education Statistics, *Trends in Minority Enrollment in Higher Education, Fall 1978 - Fall 1988*, (Washington, D. C.: June 1990).

Baccalaureate Origins of Women and Racial/Ethnic Groups with Doctorates in S&E

Women and racial/ethnic minority groups have different patterns of baccalaureate origins than other S&E doctorate holders. In general, the research universities play less of a role and the other types of institutions play a greater role in their baccalaureate education.

Baccalaureate Origins of Women S&E Doctorate Recipients

Women—who account for approximately one-third of all recent S&E doctorate holders[11]—were less likely than male S&E doctorate holders to earn their baccalaureates at research universities (table 11). On the other hand, women who earned their science doctorates were more likely than men to have had their undergraduate education in baccalaureate colleges (chart 7).

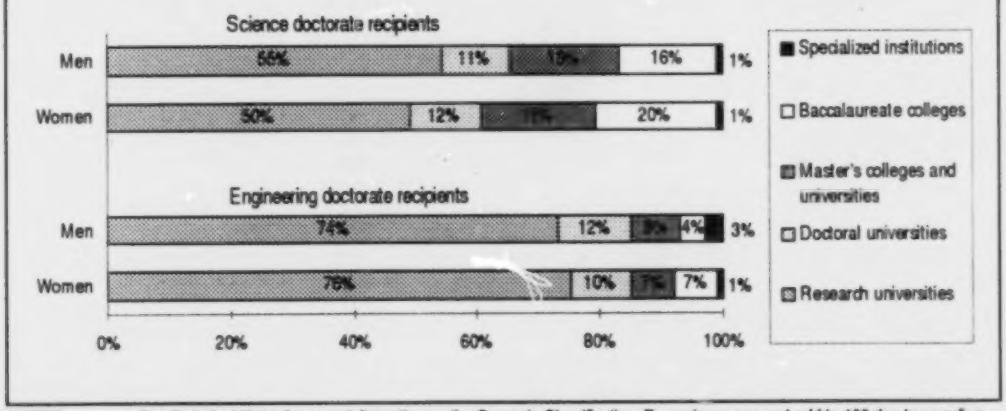
[11] Susan T. Hill, *Selected Data on Science and Engineering Doctorates: 1995* (Arlington, VA.: National Science Foundation, 1996) NSF 96-306, pp. 6-10.

Women's **25 top-ranked baccalaureate colleges** differed somewhat from the 25 institutions cited by all S&E doctorates. Specifically, four of the institutions on the women's list were not found on the general ranking: Brown University, Duke University, Yale University, and University of Colorado at Boulder (table 12).

Baccalaureate-Origins by Racial/Ethnic Group of Recent S&E Doctorate Recipients

Striking differences frequently emerge in the patterns of baccalaureate origins of white S&E doctorate holders compared with their counterparts in other racial/ethnic groups[12] (charts 8 and 9). For example, Asians were much more likely than whites to have received their undergraduate degrees at research universities, and black S&E doctorate holders were less likely than whites to have attended research universities (table 13).

Chart 7. Baccalaureate origins of recent science and engineering doctorate recipients in U.S. institutions, by sex and Carnegie Classification of Institutions



NOTES: See Technical Notes for more information on the Carnegie Classification. Percentages may not add to 100 due to rounding.

SOURCE: National Science Foundation/SRS, Survey of Earned Doctorates for the years 1991-95.

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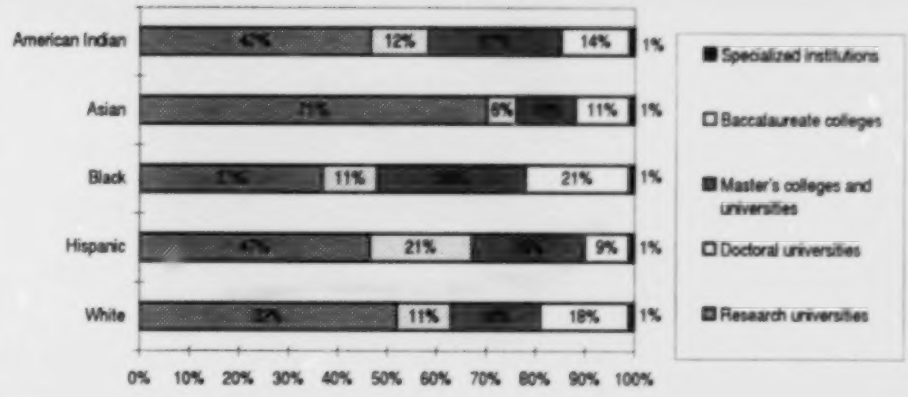
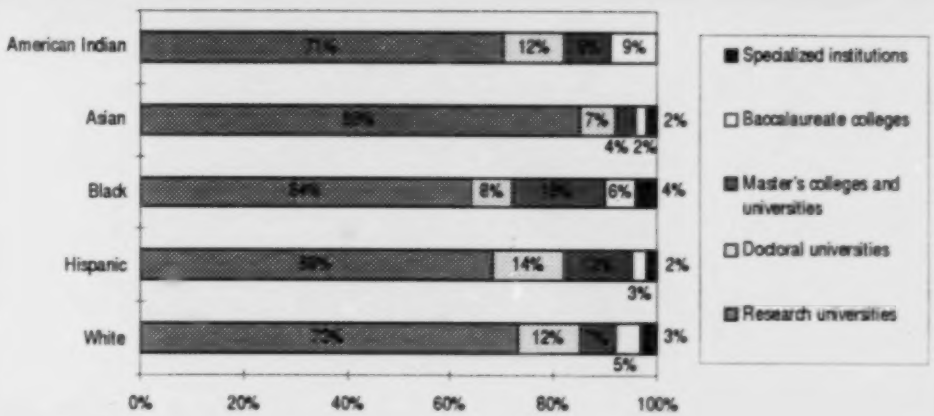
Chart 8. Baccalaureate origins of recent science doctorate recipients in U.S. institutions, by race ethnicity and Carnegie Classification of Institutions



NOTES: See Technical Notes for more information on the Carnegie Classification. Percentages may not add to 100 due to rounding.

SOURCE: National Science Foundation/SRS, Survey of Earned Doctorates for the years 1991-95.

Chart 9. Baccalaureate origins of recent engineering doctorate recipients in U.S. institutions, by race ethnicity and Carnegie Classification of Institutions



NOTES: See Technical Notes for more information on the Carnegie Classification. Percentages may not add to 100 due to rounding.

SOURCE: National Science Foundation/SRS, Survey of Earned Doctorates for the years 1991-95.

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In terms of the types of institutions providing S&E undergraduate education, the pattern for black and Hispanic doctorate holders differed from that of other racial/ethnic groups. Master's institutions played a much greater role than the other types of institutions in the undergraduate education of blacks and Hispanics in both science and engineering.

In comparing the top 25 baccalaureate institutions cited by all S&E doctorate holders with those cited by S&E doctorate holders from **underrepresented racial/ethnic groups**,[13] several interesting differences come to light.

The list of the prominent baccalaureate-origin institutions cited by **Hispanic** S&E doctorate holders differed greatly from the list for all S&E doctorate holders. Many of the Hispanic S&E doctorates received their baccalaureates from four Puerto Rican universities (table 14). Also, significant numbers of institutions cited by the Hispanics were located in California, Florida, New Mexico, and Texas, as would be expected given the geographic concentrations of U.S. Hispanic populations.[14] Tables 14a-c show the baccalaureate-origin institutions of Mexican-Americans, Puerto Ricans, and other Hispanics separately.

Because of the small number of **American Indian** S&E doctorate holders, the list of their prominent baccalaureate-origin institutions includes the top 20 colleges and universities that produced three or more baccalaureates who went on to earn an S&E doctorate (table 15). Only six of these 20 institutions were also on the list of top baccalaureate-origins of all S&E doctorate holders. The differences in institutions cited by American Indian versus all S&E doctorate holders reflect to a certain extent the geographic concentrations of American Indian populations.

The top 26 baccalaureate-origin institutions for **black** S&E doctorate holders deviated significantly from the general top 25 list (table 16). Specifically, 12 of the top 26 baccalaureate institutions for black S&E doctorates were historically black colleges and universities (HBCUs).

Role of Historically Black Colleges and Universities (HBCUs) in the Baccalaureate Education of Black S&E Doctorate Recipients

The HBCUs were originally established under legal segregation for the purpose of educating blacks. These institutions were significant in the baccalaureate education of black S&E doctorate holders.[15] S&E bachelors degrees are awarded by 81 HBCUs, most of which are classified as master's or baccalaureate institutions. In all, HBCUs accounted for almost 27 percent of the baccalaureate origins of recent black S&E doctorate recipients. HBCUs were of particular significance in providing the baccalaureate origins of black doctorate recipients in natural science fields[16] (chart 10).

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[12] Carol Fuller, *Baccalaureate Sources of 1975-1986 Doctorates Earned by American Indian, Asian, Black, Hispanic and White Men and Women Adjusted for Institutional Size* (Ann Arbor, MI: Great Lakes Colleges Association, 1989) and Norean Radke Sharpe and Carol H. Fuller, "Baccalaureate Origins of Women Physical Science Doctorates: Relationship to Institutional Gender and Science Discipline," *Journal of Women and Minorities in Science and Engineering*, vol. 2, pp. 1-15, 1995.

[13] The following analysis of underrepresented racial/ethnic groups has been limited to U.S. citizen S&E doctorate holders who were Black, Hispanic, or American Indian.

[14] Daniel Solorzano, "The Baccalaureate Origins of Chicana and Chicano Doctorates in the Physical, Life, and Engineering Sciences: 1980-1990," *Journal of Women and Minorities*, Vol. 1, No. 4, p. 25.

[15] John T. Hill and Susan T. Hill, "The Role of HBCUs in the Education of Black Scientists and Engineers," paper presented at the 1991 Conference on Blacks in Higher Education (Washington, D. C., 1991).

[16] Cheryl Leggon and Willie Pearson, Jr., "The Baccalaureate Origins of African American Female Ph.D. Scientists," paper presented at the 1993 Conference of the American Association for the Advancement of Science (Boston, MA, 1993).

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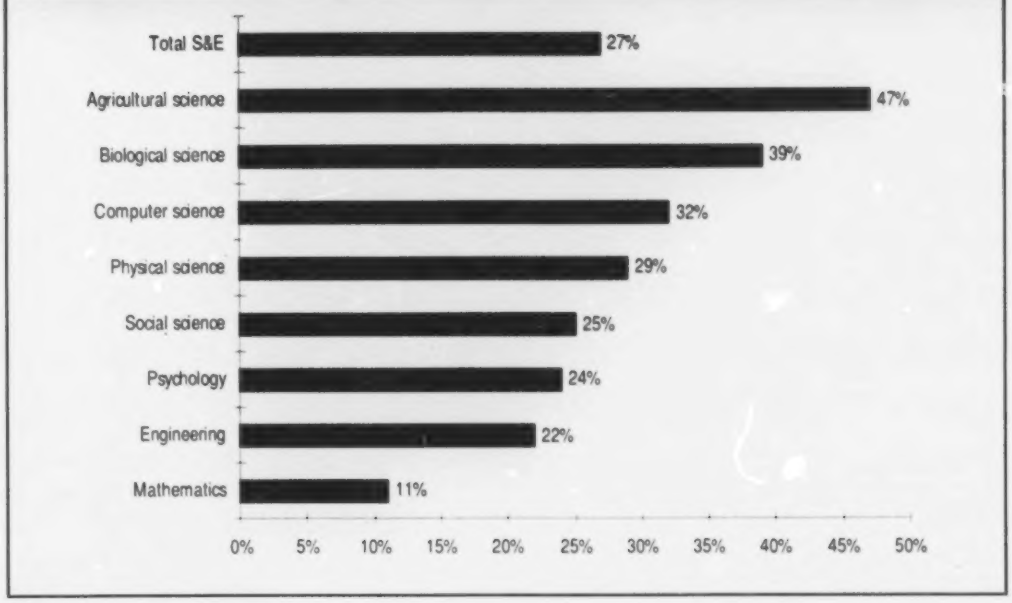
Chart 10. Black U.S.-citizen S&E doctorate recipients with baccalaureate origins in historically black colleges and universities, by broad science and engineering fields



S&E: science and engineering

NOTE: HBCUs are the 90 historically black colleges and universities that award baccalaureates in S&E fields.

SOURCE: National Science Foundation/SRS, Survey of Earned Doctorates for the years 1991-95.

Appendix A.

Technical Notes

Appendix A. Technical Notes

Data Source

This report is based on information collected through the Survey of Earned Doctorates (SED), conducted annually by the National Academy of Sciences for the NSF and other Federal agencies since 1957. Data are collected directly from the individual doctorate recipients, and include a complete enumeration of the individual's educational history. Information from this survey becomes part of the Doctorate Records File, which comprises over 1,185,000 records for doctorates awarded since 1920 by regionally accredited universities and colleges. Data on doctoral degrees such as the Ph.D. or D. Sc. are collected in these surveys, but not on first-professional degrees such as the J.D. or M.D. Approximately 94 percent of the annual cohort of doctorate recipients responded to the questionnaire, which is distributed through the cooperation of the Graduate Deans. Partial data from public sources, such as graduation commencement programs, were added to the file for those doctorate recipients who had not responded. The data for a given year include all doctorates awarded in the 12-month period ending June 30th of the referenced year.

Possible Sources of Survey Error

The SED is a universe survey of all recipients of research doctorates; therefore it is not subject to sampling error. Data obtained from this survey are subject to nonsampling error, however. Nonsampling errors may result from a variety of factors, including nonresponse to the survey or to a particular item; differences in interpreting questions; respondent errors; and errors made in recording the data. It is difficult to quantify the nonsampling error from all possible sources. The following provide known information concerning the three major sources of nonsampling error for the SED: survey nonresponse, item nonresponse, and errors made in recording the data.

Survey Nonresponse

The response rate to the SED is high for a voluntary survey of individuals. The response rate averages 94 percent over the period for which data are presented in this report. For nonrespondents to the survey, information on field of study, doctorate institution, sex, and baccalaureate is obtained from public sources such as commencement programs, and added to the file. Data are not imputed for the other variables in the survey.

An analysis of the sources of nonresponse indicated that survey nonresponse is related to institutions, not to characteristics of the doctoral recipients. Half of the nonresponse in 1995 was accounted for by 3 percent of the institutions in the survey. In general, these institutions employed methods for collecting the survey data that resulted in low response rates or did not have any residency requirements for their doctoral programs.

Item Nonresponse

Persons who respond to the survey may choose not to provide the information requested in a particular question or may inadvertently skip an item on the survey form. The public sources already cited (e.g., commencement programs) may provide additional information. The data items reported in the tables in this report are listed in Table A-1 with response rates, showing the

Table A-1. Item response rates: 1995

Item	Response rate
Sex	100.0 %
Field of study	100.0
Citizenship	97.9
Race/ethnicity	96.5
Baccalaureate-origin institution*	95.8

*The response rate for this item is higher than the overall survey response rate because public records, such as commencement programs, are used to obtain this information for nonrespondents.

SOURCE: National Science Foundation/SRS, Survey of Earned Doctorates

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extent of information obtainable from any sources for doctorates. For example, the item that concerned baccalaureate-origin institution was available for 95.8 percent of the doctorate recipients in 1995.

Errors Made in Recording Data

The SED forms are processed on a continual basis throughout the year. When the forms are received from the Graduate Schools, they are reviewed for completeness to determine whether there is enough information to be considered a response. If so, they are ready for data entry.

The results of an evaluation showed that the error rate is less than one percent. Because the SED is a survey of individuals, an error in recording a data item affects only that item for that individual. The evaluation found that the error rate per item was .002 for the on-line data entry method.

Carnegie Classification of Institutions of Higher Education

The classification system for institutions used in this study was modified from the 1987 Carnegie Classification of Institutions. Using this classification, five types of institutions were identified, as follows.

Research Universities are the 125 leading universities in terms of Federal financial support of research and development; they awarded at least 50 Ph.D.'s each year. Examples include University of California at Berkeley (CA), University of Texas at Austin (TX), Duke University (NC), and University of Chicago (IL).

Doctoral Universities are the major doctoral-granting institutions. The established doctoral programs of these institutions have awarded at least 20 Ph.D.'s in any field, or 10 Ph..D.'s in three or more fields. Examples include Iowa State University (IA), University of South Florida (FL), Howard University (DC), and Rensselaer Polytechnic Institute (NY).

Master's Colleges and Universities offered a full range of baccalaureate programs and are committed to graduate education through the master's degree. They award 20 or more master's degrees annually in one or more disciplines. Examples include Glassboro State College (NJ), Old Dominion University (VA), Creighton University (NE), and Aquinas College (MI).

Baccalaureate Colleges are predominantly bachelor's-degree granting institutions that award 40 or more of their degrees in liberal arts fields. Institutions such as Oberlin College are included, even though they have master's degree programs. This category also includes a group of colleges that awarded less than half their degrees in liberal arts fields, but were too small (i.e., less than 1,500 students) to be considered "master's." Examples of colleges in this category include Reed (OR), Bryn Mawr (PA), College of Charleston (SC), and Fisk University (TN).

Specialized Institutions focused primarily on technical, professional, or corporate programs in a range of areas such as theology, medicine, engineering, business, art, music, law, and teaching. Examples of specialized institutions include New Jersey Institute of Technology, Princeton Theological Seminary (NJ), University of Oklahoma Health Science Center, and Teacher's College of Columbia (NY).

Requests for additional information concerning the survey methodology and analysis should be directed to Susan T. Hill at the following address:

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National Science Foundation (Room 965)
4201 Wilson Boulevard
Arlington, VA. 22230
(703) 306-1774

Appendix B.

Detailed Statistical Tables

List of Tables

Table *Page*

1. U.S. vs. foreign baccalaureate-origin institutions of S&E 1991-95 doctorate recipients, by field of doctorate 23

2. Foreign 1991-95 S&E doctorate recipients who earned baccalaureates at U.S. institutions, by visa type and region/country of citizenship 24

3. Top 25 baccalaureate-origin institutions of 1991-95 science and engineering (S&E) doctorate recipients, ranked according to total S&E doctorates, by field of doctorate 25

4. Baccalaureate-origin institutions of 1991-95 science and engineering doctorate recipients, by Carnegie Classification of U.S. institutions and field of doctorate 26

5. Top 25 "research universities" that were baccalaureate-origin institutions of 1990-95 science and engineering (S&E) doctorate recipients, ranked according to total S&E doctorates, by field of doctorate 27

6. Top 25 "doctoral universities" that were baccalaureate-origin institutions of 1991-95 science and engineering (S&E) doctorate recipients, ranked according to total S&E doctorates by field of doctorate 28

7. Top 25 "master's colleges and universities" that were baccalaureate-origin institutions of 1991-95 science and engineering (S&E) doctorate recipients, ranked according to total S&E doctorates, by field of doctorate 29

8. Top 25 "baccalareate colleges" that were baccalaureate-origin institutions of 1991-95 science and engineering (S&E) doctorate recipients, ranked according to total S&E doctorate by field of doctorate 30

9. Top 24 "specialized institutions" that were baccalaureate-origin institutions of 1991-95 science and engineering (S&E) doctorate recipients, ranked according to total S/E doctorate by field of doctorate 31

10 Attendance at two year colleges for 1991-95 science and engineering (S&E) doctorate recipients (U.S. citizens only) who attended a 2-year college, by field of doctorate: 1991-95 32

11. Baccalaureate-origin institutions of all 1991-95 science and engineering (S&E) doctorate recipients, by sex and Carnegie Classification of U.S. institutions 33

12. Top 25 baccalaureate-origin institutions of 1991-95 female science and engineering (S&E) doctorate recipients, ranked according to total S&E doctorates, by field of doctorate 34

13. Baccalaureate-origin institutions of all 1991-95 science and engineering (S&E) doctorate recipients, by race/ethnicity and by Carnegie Classification of U.S. institutions 35

14. Top 25 baccalaureate-origin institutions of 1991-95 science and engineering (S&E) doctorate recipients who were Hispanic U.S. citizens, by field of doctorate 36

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LIST OF TABLES—CONTINUED

Table *Page*

14a. Top 29 institutions that were baccalaureate origins of 1991-95 science and engineering (S&E) doctorate recipients who were citizens, ranked according to total S&E doctorates, by field of doctorate 37

14b. Top 27 institutions that were baccalaureate origins of 1991-95 science and engineering (S&E) doctorate recipients who were Mexican-American U.S. citizens, ranked according to total S&E doctorates, by field of doctorate 38

14c. Top 23 institutions that were baccalaureate origins of 1991-95 science and engineering (S&E) doctorate recipients who were "other Hispanic" U.S. citizens, ranked according to total S&E doctorates, by field of doctorate 39

15. Top 20 baccalaureate-origin institutions of 1991-95 science and engineering (S&E) doctorate recipients who were American Indian U.S. citizens, by field of doctorate 40

16. Top 26 baccalaureate-origin institutions of 1991-95 science and engineering (S&E) doctorate recipient who were black U.S. citizens, by field of doctorate 41

17. HBCU institutions that were baccalaureate origins of 1991-95 science and engineering (S&E) doctorate recipients who were black U.S. citizens, ranked according to total S&E doctorates, by field of doctorate 42

18. Baccalaureate-origin institutions of 10 or more science and engineering doctorates, ranked according to total, S&E doctorates, by field of doctorate: 1991-95 43

19. Foreign baccalaureate-origin institutions of 10 or more 1994 science and engineering recipients, by field of doctorate 79

20. Top 25 foreign baccalaureate-origin institutions of 1994 non-U.S. science and engineering (S&E) doctorates, by field of doctorate 87

Table 1. U.S. versus foreign baccalaureate-origin institutions of 1991-95 science and engineering (S&E) doctorate recipients, by field of doctorate

Field of doctorate	Total known colleges and universities	U.S. colleges and universities	Foreign colleges and universities	Percentage distribution of baccalaureate degrees from U.S. and foreign institutions		
				Total known colleges and universities	U.S. colleges and universities	Foreign colleges and universities
Science and engineering, total	121,839	76,992	44,847	100.0%	63.2%	36.8%
Sciences, total	94,775	65,054	29,721	100.0	68.6	31.4
Physical sciences, total	18,281	11,060	7,221	100.0	60.5	39.5
Chemistry	10,642	6,705	3,937	100.0	63.0	37.0
Physics and astronomy	7,526	4,282	3,244	100.0	56.9	43.1
Other physical sciences	113	73	40	100.0	64.6	35.4
Earth, atmospheric, & ocean sciences	3,845	2,537	1,308	100.0	66.0	34.0
Mathematics	5,206	2,512	2,694	100.0	48.3	51.7
Computer sciences	4,315	2,203	2,112	100.0	51.1	48.9
Biological & agricultural sciences, total	28,903	19,951	8,952	100.0	69.0	31.0
Biological sciences	23,852	17,301	6,551	100.0	72.5	27.5
Agricultural sciences	5,051	2,650	2,401	100.0	52.5	47.5
Psychology	16,094	15,060	1,034	100.0	93.6	6.4
Social sciences	18,131	11,731	6,400	100.0	64.7	35.3
Engineering, total	27,064	11,938	15,126	100.0	44.1	55.9
Chemical	3,502	1,721	1,781	100.0	49.1	50.9
Civil	3,028	1,018	2,010	100.0	33.6	66.4
Electrical	7,545	3,463	4,082	100.0	45.9	54.1
Mechanical	4,724	1,849	2,875	100.0	39.1	60.9
Other engineering	8,265	3,887	4,378	100.0	47.0	53.0

SOURCE: National Science Foundation/SRS, Survey of Earned Doctorates

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Table 2. Foreign 1991-95 science and engineering (S&E) doctorate recipients who earned baccalaureates at U.S. institutions, by visa type and region/country of citizenship

Region/country of citizenship	Permanent visas			Temporary visas		
	Total known baccalaureate location	Number who earned baccalaureate in the U.S.	Percent who earned baccalaureate in the U.S.	Total known baccalaureate location	Number who earned baccalaureate in the U.S.	Percent who earned baccalaureate in the U.S.
Total, foreign citizenship	10,264	1,773	17.3%	36,557	2,393	6.5%
North America, total	604	235	38.9	1,933	184	9.5
Canada	353	118	33.4	1,057	69	6.5
Caribbean	103	75	72.8	149	57	38.5
Central America	45	17	37.8	204	39	19.1
Mexico	103	25	24.3	524	19	3.6
South America, total	290	84	29.0	1,528	89	5.8
Argentina	62	17	27.4	209	10	4.8
Brazil	64	15	23.4	604	5	0.8
Chile	29	4	13.8	185	4	2.2
Colombia	43	13	30.2	149	11	7.4
South America, other	92	35	38.0	381	59	15.5
Europe, total	1,083	370	34.2	3,463	294	8.5
Belgium	34	11	32.4	109	7	6.4
England, United Kingdom	259	85	32.8	405	26	6.4
France	62	18	29.0	288	18	6.2
Germany	184	92	50.0	425	49	11.5
Europe, other	544	164	30.1	2,236	194	8.7
East Asia, total	5,752	290	5.0	18,743	655	3.5
Taiwan	606	38	4.7	5,163	56	1.1
China, People's Republic of	4,183	56	1.3	6,624	49	0.7
Hong Kong	97	51	52.6	416	127	30.5
Japan	105	44	41.9	614	72	11.7
Korea	442	43	9.7	5,018	96	1.9
Thailand	47	8	17.0	403	34	8.4
East Asia, other	72	50	69.4	505	221	43.8
West Asia, total	1,993	467	27.9	7,735	838	10.8
India	719	55	7.6	3,977	85	2.1
Iran	407	276	67.8	540	290	53.7
Iraq	26	5	19.2	81	6	7.4
Israel	112	6	5.4	326	19	5.8
Lebanon	49	24	49.0	242	85	35.1
Saudi Arabia	24	6	25.0	305	56	18.4
Turkey	78	16	20.5	569	16	2.8
West Asia, other	278	79	28.4	1,695	281	16.6
Pacific/Australasia, total	174	49	28.2	925	49	5.3
Australia	51	12	23.5	186	7	3.8
Indonesia	48	24	50.0	331	35	10.6
New Zealand	18	3	16.7	83	0	0.0
Philippines	53	6	11.3	318	7	2.2
Pacific/Australasia, other	4	4	100.0	7	0	0.0
Africa, total	496	220	44.4	1,995	249	13.2
Egypt	53	0	0.0	406	11	2.7
Nigeria	160	122	76.2	145	46	31.7
Africa, other	283	98	34.6	1,334	191	14.3
Country unknown	172	58	33.7	345	36	10.4

NOTE: Regions include other countries not specified.
SOURCE: National Science Foundation/SRS, Survey of Earned Doctorates

Table 3. Top 25 baccalaureate-origin institutions of 1991-95 science and engineering (S&E) doctorate recipients, ranked according to total S&E doctorates, by field of doctorate

Baccalaureate-origin institution	Total S&E	Total sciences	Field of science							Total engineering
			Physical sciences[1]	Mathematics	Computer sciences	Biological sciences	Agricultural sciences	Psychology	Social sciences	
University of California-Berkeley	1,590	1,263	287	62	54	374	23	178	285	327
University of Illinois-Urbana-Champaign	1,129	795	173	16	32	272	71	134	97	334
Cornell University (NY)	1,090	899	179	20	31	346	61	152	110	191
University of Michigan-Ann Arbor	1,060	825	153	19	38	222	15	222	156	235
Massachusetts Institute of Technology	1,000	633	266	42	98	156	3	18	52	367
University of Wisconsin-Madison	995	799	148	24	28	257	64	155	123	196
Pennsylvania State University	865	635	130	13	13	241	52	99	87	230
University of California-Los Angeles	781	688	126	27	20	165	3	235	112	93
Harvard University (MA)	752	721	139	50	52	211	4	74	191	31
University of Minnesota-Minneapolis	712	563	107	22	27	150	71	93	93	149
University of Texas-Austin	681	514	102	18	20	116	6	139	113	167
University of California-Davis	663	577	108	16	7	271	47	58	70	86
Ohio State University-Columbus	635	493	78	17	18	141	35	104	100	142
Michigan State University-East Lansing	630	547	76	16	19	174	58	108	96	83
Purdue University-West Lafayette (IN)	621	372	94	11	20	116	43	48	40	249
Rutgers University (NJ)	620	522	103	20	10	189	32	105	63	98
University of Maryland-College Park	595	479	68	19	20	140	18	117	97	116
Texas A&M University-College Station	569	398	74	15	9	145	63	56	36	171
University of Washington	560	439	87	16	11	126	24	88	87	121
Princeton University (NJ)	544	449	119	22	30	140	0	36	102	95
University of Pennsylvania	535	448	56	20	23	121	1	114	113	87
University of California-San Diego	535	451	95	28	8	181	1	84	54	84
Stanford University (CA)	519	426	83	18	22	131	5	72	95	93
Iowa State University	515	359	52	18	12	119	79	39	40	156
Virginia Polytechnic Institute & State University	514	292	68	12	13	95	38	37	29	222
Total, top 25	18,710	14,587	2,971	561	633	4,599	817	2,565	2,441	4,123
Total, all U.S. institutions	76,992	65,054	13,597	2,512	2,203	17,301	2,650	15,060	11,731	11,938
Top 25 as a percent of all institutions	24.3%	22.4%	21.9%	22.3%	28.7%	26.6%	30.8%	17.0%	20.8%	34.5%

[1] Includes earth, atmospheric, and oceanographic sciences.

NOTE: Rankings are based on the number of persons who responded to the Survey of Earned Doctorates.

SOURCE: National Science Foundation/SRS, Survey of Earned Doctorates

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Table 4. Baccalaureate-origin institutions of 1991-95 science and engineering (S&E) doctorate recipients, by Carnegie Classification of U.S. institutions and field of doctorate

Field of doctorate	Total known Carnegie	Research universities	Doctoral universities	Master's colleges and universities	Baccalaureate colleges	Specialized institutions
Science and engineering, total	76,599	42,757	8,626	12,589	11,556	1,071
Engineering, total	11,900	8,786	1,390	911	489	324
Chemical	1,714	1,355	200	80	51	28
Civil	1,015	715	135	85	51	29
Electrical	3,450	2,599	380	259	124	88
Mechanical	1,845	1,377	227	145	40	56
Other engineering	3,876	2,740	448	342	223	123
Sciences, total	64,699	33,971	7,236	11,678	11,067	747
Physical sciences, total	11,015	5,373	1,280	2,082	2,089	191
Chemistry	6,678	2,634	849	1,564	1,532	97
Physics and astronomy	4,267	2,692	425	511	549	90
Other physical sciences	72	47	6	7	8	4
Earth, atmospheric, & ocean sciences	2,528	1,433	267	357	437	32
Mathematics	2,498	1,344	276	387	432	57
Computer sciences	2,190	1,303	266	328	231	62
Biological & agricultural sciences, total	19,865	11,558	1,893	3,184	3,092	138
Biological sciences	17,222	9,777	1,674	2,763	2,875	133
Agricultural sciences	2,643	1,781	219	421	217	5
Psychology	14,953	6,925	1,956	3,306	2,647	119
Social sciences	11,654	6,035	1,298	2,034	2,139	148

Field of doctorate	Percent distribution of S&E doctorates by Carnegie Classification of institution					
	Total known Carnegie	Research universities	Doctoral universities	Master's colleges and universities	Baccalaureate colleges	Specialized institutions
Science and engineering, total	100.0%	55.8%	11.3%	16.4%	15.1%	1.4%
Engineering, total	100.0	73.8	11.7	7.7	4.1	2.7
Chemical	100.0	79.1	11.7	4.7	3.0	1.6
Civil	100.0	70.4	13.3	8.4	5.0	2.9
Electrical	100.0	75.3	11.0	7.5	3.6	2.6
Mechanical	100.0	74.6	12.3	7.9	2.2	3.0
Other engineering	100.0	70.7	11.6	8.8	5.8	3.2
Sciences, total	100.0	52.5	11.2	18.0	17.1	1.2
Physical sciences, total	100.0	48.8	11.6	18.9	19.0	1.7
Chemistry	100.0	39.5	12.7	23.4	22.9	1.5
Physics and astronomy	100.0	63.1	10.0	12.0	12.9	2.1
Other physical sciences	100.0	65.3	8.3	9.7	11.1	5.6
Earth, atmospheric, & ocean sciences	100.0	56.7	10.6	14.1	17.3	1.3
Mathematics	100.0	53.8	11.1	15.5	17.3	2.3
Computer sciences	100.0	59.5	12.1	15.0	10.5	2.8
Biological & agricultural sciences, total	100.0	58.2	9.5	16.0	15.6	0.7
Biological sciences	100.0	56.8	9.7	16.0	16.7	0.8
Agricultural sciences	100.0	67.4	8.3	15.9	8.2	0.2
Psychology	100.0	46.3	13.1	22.1	17.7	0.8
Social sciences	100.0	51.8	11.1	17.5	18.4	1.3

SOURCE: National Science Foundation/SRS, Survey of Earned Doctorates

Table 5. Top 25 "research universities" that were baccalaureate origins of 1991-95 science and engineering (S&E) doctorate recipients, ranked according to total S&E doctorates, by field of doctorate

Baccalaureate-origin institution	Total S&E	Total sciences	Field of science							Total engineering
			Physical sciences[1]	Mathematics	Computer sciences	Biological sciences	Agricultural sciences	Psychology	Social sciences	
University of California-Berkeley	1,590	1,263	287	62	54	374	23	178	285	327
University of Illinois-Urbana-Champaign	1,129	795	173	16	32	272	71	134	97	334
Cornell University (NY)	1,090	899	179	20	31	346	61	152	110	191
University of Michigan-Ann Arbor	1,060	825	153	19	38	222	15	222	156	235
Massachusetts Institute of Technology	1,000	633	266	42	96	156	3	18	52	367
University of Wisconsin-Madison	995	799	148	24	28	257	64	155	123	196
Pennsylvania State University	865	635	130	13	13	241	52	99	87	230
University of California-Los Angeles	781	688	126	27	20	165	3	235	112	93
Harvard University (MA)	752	721	139	50	52	211	4	74	191	31
University of Minnesota-Minneapolis	712	563	107	22	27	150	71	93	93	149
University of Texas-Austin	681	514	102	18	20	116	6	139	113	167
University of California-Davis	663	577	108	16	7	271	47	58	70	86
Ohio State University-Columbus	635	493	78	17	18	141	35	104	100	142
Michigan State University-East Lansing	630	547	76	16	19	174	58	108	96	83
Purdue University-Wes. Lafayette (IN)	621	372	94	11	20	116	43	48	40	249
Rutgers University-New Brunswick (NJ)	620	522	103	20	10	189	32	105	63	98
University of Maryland-College Park	595	479	68	19	20	140	18	117	97	116
Texas A&M University-College Station	569	398	74	15	9	145	63	56	36	171
University of Washington	560	439	87	16	11	126	24	88	87	121
Princeton University (NJ)	544	449	119	22	30	140	0	36	102	95
University of Pennsylvania	535	448	56	20	23	121	1	114	113	87
University of California-San Diego	535	451	95	28	8	181	1	84	54	84
Stanford University (CA)	519	426	83	18	22	131	5	72	95	93
Iowa State University	515	359	52	18	12	119	79	39	40	156
Virginia Polytechnic Institute & State University	514	292	68	12	13	95	38	37	29	222
Total, top 25	18,710	14,587	2,971	561	633	4,599	617	2,565	2,441	4,123
Total, all "research universities"	42,757	33,971	6,808	1,344	1,303	9,777	1,781	6,925	6,035	8,786
Top 25 as a percent of all "research universities"	43.8%	42.9%	43.7%	41.7%	48.6%	47.0%	45.9%	37.0%	40.4%	46.9%

[1] Includes earth, atmospheric, and oceanographic sciences.

NOTE: Rankings are based on the number of persons who responded to the Survey of Earned Doctorates. "Research universities" offer a full range of baccalaureate programs, are committed to graduate education through the doctorate, and give high priority to research. They award 50 or more doctoral degrees each year. In addition, they receive annually $15.5 million or more in federal support.

SOURCE: National Science Foundation/SRS, Survey of Earned Doctorates

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Table 6. Top 25 "doctoral universities" that were baccalaureate origins of 1991-95 science and engineering (S&E) doctorate recipients, ranked according to total S&E doctorates, by field of doctorate

Baccalaureate-origin institution	Total S&E	Total sciences	Field of science							Total engineering
			Physical sciences[1]	Mathematics	Computer sciences	Biological sciences	Agricultural sciences	Psychology	Social sciences	
State University of New York-Binghamton	268	255	40	10	7	60	2	95	41	13
University of Puerto Rico-Rio Piedras	243	230	61	2	4	47	7	56	53	13
College of William and Mary (VA)	240	229	70	4	10	66	5	26	48	11
Dartmouth College (NH)	233	211	68	7	13	42	4	33	44	22
San Diego State University (CA)	220	207	31	4	1	28	3	102	38	13
Miami University (OH)	213	206	39	5	4	56	6	53	43	7
University of New Hampshire-Durham	184	150	24	3	2	62	10	23	26	34
Michigan Technological University	166	75	32	3	7	20	9	0	4	91
University of Maine-Orono	155	130	19	5	0	48	22	24	12	25
University of Missouri-Rolla	151	49	27	5	3	7	1	4	2	102
University of Akron (OH)	147	106	33	2	2	16	2	35	16	41
Illinois State University-Normal	147	146	37	2	4	31	6	40	26	1
University of Alabama-Tuscaloosa	134	100	23	3	7	16	3	23	25	34
Drexel University (PA)	132	60	20	6	5	15	2	3	9	72
Baylor University (TX)	132	130	14	8	5	32	3	41	27	2
Boston College (MA)	131	125	20	7	0	28	0	50	20	6
Marquette University (WI)	127	103	15	3	1	36	2	31	15	24
University of Texas-Arlington	127	84	24	5	4	19	2	18	12	43
University of Montana-Missoula	127	123	24	3	3	28	16	25	24	4
Northern Illinois University	126	124	24	9	3	33	3	30	22	2
Wake Forest University (NC)	126	125	34	2	3	32	0	35	19	1
Montana State University-Bozeman	120	87	21	8	1	22	12	9	14	33
Bowling Green State University (OH)	117	112	21	3	5	41	0	23	19	5
Clark University (MA)	114	110	9	2	1	26	2	46	24	4
University of Toledo (OH)	111	86	17	1	3	18	1	30	16	25
Total, top 25	3,991	3,363	747	112	96	829	123	855	599	628
Total, all "doctoral institutions"	8,626	7,236	1,547	276	266	1,674	219	1,956	1,298	1,390
Top 25 as a percent of all "doctoral institutions"	46.3%	46.5%	48.3%	40.6%	36.8%	49.5%	56.2%	43.7%	46.1%	45.2%

[1] Includes earth, atmospheric, and oceanographic sciences.

NOTE: Rankings are based on the number of persons who responded to the Survey of Earned Doctorates. "Doctoral universities" offer a full range of baccalaureate programs and are committed to graduate education through the doctorate. They award annually at least 10 doctoral degrees in three or more disciplines, or 20 or more doctoral degrees in one or more disciplines.

SOURCE: National Science Foundation/SRS, Survey of Earned Doctorates

Table 7. Top 25 "master's colleges and universities" that were baccalaureate origins of 1991-1995 science and engineering (S&E) doctorate recipients, ranked according to total S&E doctorates, by field of doctorate

Baccalaureate-origin institution	Total S&E	Total science	Field of science							Total engineering
			Physical sciences[1]	Mathematics	Computer sciences	Biological sciences	Agricultural sciences	Psychology	Social sciences	
California State University-Northridge	182	165	14	6	2	21	0	81	31	17
California State University-Long Beach	181	167	19	4	5	31	2	82	24	14
San Francisco State University (CA)	170	161	28	4	0	38	2	59	31	9
California State University-Fullerton	152	149	14	6	5	24	3	82	15	3
City College, City University of New York	148	111	9	4	9	23	0	37	29	35
Queens College, City University of New York	134	131	15	7	7	14	0	58	30	3
San Jose State University (CA)	133	116	25	2	1	21	0	41	26	17
California Polytechnic State University-San Luis Obispo	131	105	35	3	1	26	19	6	15	26
University of Dayton (OH)	128	92	22	7	3	27	3	22	8	36
California State University-Fresno	125	113	29	2	2	18	8	39	15	12
Hunter College-City University of New York	120	120	13	5	1	25	1	58	19	0
Humboldt State University (CA)	120	118	29	7	4	37	22	10	9	2
Calvin College (MI)	118	105	28	7	9	18	3	22	17	13
Brooklyn College, City University of New York	110	110	13	3	7	21	1	44	21	0
California State University-Sacramento	103	95	23	5	2	12	1	24	28	8
Western Washington University	101	95	22	3	2	19	1	25	23	6
California State Polytechnic University-Pomona	92	70	11	2	2	20	8	15	12	22
California State University-Los Angeles	92	89	13	1	1	19	1	32	22	3
California State University-Chico	88	78	11	4	0	22	7	12	22	10
Rochester Institute of Technology (NY)	86	61	20	1	0	25	1	2	3	25
University of Texas-El Paso	86	72	16	0	6	16	0	17	15	14
Oakland University (MI)	83	75	15	0	3	16	0	31	10	8
Trinity University (TX)	83	76	15	2	1	17	1	27	13	7
University of Wisconsin-Stevens Point	80	76	9	1	0	33	14	13	6	4
South Dakota State University	80	66	7	2	0	23	22	7	5	14
Total, top 25	2,924	2,616	462	88	73	570	120	854	449	308
Total, all "master's institutions"	12,589	11,678	2,439	387	328	2,763	421	3,306	2,034	911
Top 25 as a percent of all "master's institutions"	23.2%	22.4%	18.9%	22.7%	22.3%	20.6%	28.5%	25.8%	22.1%	33.8%

[1] Includes earth, atmospheric, and oceanographic sciences.

NOTE: Rankings are based on the number of persons who responded to the Survey of Earned Doctorates. "Master's colleges and universities" offer a full range of baccalaureate programs and are committed to graduate education through the master's degree. They award 20 or more master's degrees annually in one or more disciplines.

SOURCE: National Science Foundation/SRS, Survey of Earned Doctorates

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Table 8. Top 25 "baccalaureate colleges" that were baccalaureate origins of 1991-95 science and engineering (S&E) doctorate recipients, ranked according to total S&E doctorates, by field of doctorate

Baccalaureate-origin institution	Total S&E	Total sciences	Field of science							Total engineering
			Physical sciences[1]	Mathematics	Computer sciences	Biological sciences	Agricultural sciences	Psychology	Social sciences	
Oberlin College (OH)	266	259	58	11	5	57	2	55	71	7
Carleton College (MN)	260	253	109	6	0	66	3	22	47	7
Swarthmore College (PA)	248	227	40	4	6	70	1	38	68	21
Wesleyan University (CT)	189	181	31	5	6	41	0	56	42	8
Reed College (OR)	182	174	42	24	2	63	3	9	31	8
St. Olaf College (MN)	171	163	40	29	1	46	1	24	22	8
Williams College (MA)	155	149	38	7	3	34	3	29	35	6
Smith College (MA)*	153	153	22	7	2	45	2	39	36	0
Bucknell University (PA)	147	122	34	10	3	37	1	16	21	25
Wellesley College (MA)*	137	134	16	4	2	32	1	40	39	3
Pomona College (CA)	135	131	19	0	5	39	2	35	22	4
Barnard College-Columbia University (NY)*	133	132	8	1	2	19	1	56	44	1
Colgate University (NY)	132	128	43	4	2	28	2	27	22	4
Grinnell College (IA)	128	120	35	0	5	32	1	20	19	8
Vassar College (NY)	125	123	12	4	0	22	1	49	29	2
Mount Holyoke College (MA)*	124	121	18	5	1	50	0	27	22	3
Bryn Mawr College (PA)*	121	116	18	8	1	22	3	19	45	5
Amherst College (MA)	116	116	19	0	1	35	3	23	29	2
Kalamazoo College (MI)	115	108	27	2	5	31	2	25	16	7
Haverford College (PA)	114	111	31	0	2	32	0	13	27	3
Wheaton College (IL)	110	105	17	3	4	14	0	48	22	5
Hope College (MI)	110	107	39	2	1	27	1	25	12	3
Union College (NY)	107	89	18	5	7	23	0	25	11	18
Occidental College (CA)	106	99	29	1	1	22	2	26	19	7
Franklin and Marshall College (PA)	100	96	35	2	0	18	0	24	17	4
Total, top 25	3,688	3,517	794	173	79	904	36	789	783	169
Total, all "baccalaureate colleges"	11,556	11,067	2,526	432	231	2,875	217	2,647	2,139	489
Top 25 as a percent of all "baccalaureate colleges"	31.9%	31.8%	31.4%	40.0%	34.2%	31.4%	16.1%	29.1%	36.7%	34.6%

* These are currently listed as women's colleges.

[1] Includes earth, atmospheric, and oceanographic sciences.

NOTE: Rankings are based on the number of persons who responded to the Survey of Earned Doctorates. "Baccalaureate colleges" are primarily undergraduate colleges with major emphasis on baccalaureate degree programs.

SOURCE: National Science Foundation/SRS, Survey of Earned Doctorates

Table 9. Top 24 "specialized institutions" that were baccalaureate origins of 1991-95 science and engineering (S&E) doctorate recipients, ranked according to total S&E doctorates, by field of doctorate

Baccalaureate-origin institution	Total S&E	Total sciences	Field of science							Total engineering
			Physical sciences[1]	Mathematics	Computer sciences	Biological sciences	Agricultural sciences	Psychology	Social sciences	
Harvey Mudd College (CA)	124	101	66	16	4	11	1	0	3	23
United States Military Academy (NY)	122	75	9	10	18	2	0	5	31	47
United States Air Force Academy (CO)	111	59	14	6	11	1	2	7	18	52
United States Naval Academy (MD)	64	35	12	3	5	1	0	2	12	29
Rose-Hulman Institute of Technology (IN)	55	27	14	6	4	1	1	0	1	28
New Mexico Institute of Mining & Technology	52	39	28	3	2	6	0	0	0	13
Cooper Union (NY)	45	11	3	4	3	0	0	0	1	34
Philadelphia College of Pharmacy & Science	44	44	13	0	0	31	0	0	0	0
South Dakota School of Mines & Technology	39	18	14	2	2	0	0	0	0	21
GMI Engineering & Management Institute (MI)	31	6	3	0	1	0	0	1	1	25
Rider University (NJ)	24	23	6	0	0	11	0	3	3	1
University of Maryland School of Medicine	17	17	1	0	0	10	0	4	2	0
United States Coast Guard Academy (CT)	16	11	2	2	1	1	0	1	4	5
Milwaukee School of Engineering (WI)	12	0	0	0	0	0	0	0	0	12
John Jay College of Criminal Justice-CUNY	11	11	0	0	0	0	0	3	8	0
Webb Institute of Naval Architecture (NY)	9	4	3	0	0	0	0	0	1	5
University of Texas-Health Sciences Center -San Antonio	9	9	1	0	1	4	0	3	0	0
Albany College of Pharmacy (NY)	8	8	5	0	0	2	0	1	0	0
Pratt Institute (NY)	7	3	0	0	2	1	0	0	0	4
State University of New York Maritime College	7	4	2	0	0	0	0	0	2	3
Massachusetts College of Pharmacy & Health Science	6	6	1	0	0	4	0	1	0	0
U.S. Merchant Marine Academy (NY)	6	3	2	0	0	1	0	0	0	3
University of Nebraska Medical Center	6	6	0	0	1	3	0	1	1	0
Medical College of Georgia	6	6	0	0	0	1	0	4	1	0
Total, top 24	831	526	199	52	55	91	4	36	89	305
Total, all "specialized institutions"	1,071	747	223	57	62	133	5	119	148	324
Top 24 as a percent of all "specialized institutions"	77.6%	70.4%	89.2%	91.2%	88.7%	68.4%	80.0%	30.3%	60.1%	94.1%

[1] Includes earth, atmospheric, and oceanographic sciences.

NOTE: Rankings are based on the number of persons who responded to the Survey of Earned Doctorates. "Specialized institutions" offer degrees ranging from the bachelor's to the doctorate. At least 50 percent of the degrees awarded by these institutions are in a single discipline.

SOURCE: National Science Foundation/SRS, Survey of Earned Doctorates

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Table 10. Attendance at two-year colleges for 1991-95 science and engineering (S&E) doctorate recipients, by field of doctorate

Baccalaureate-origin institution	Total number with known two-year college status	Attended two-year college	Percent who attended two-year college
Science and engineering, total	71,387	7,389	10.3%
Sciences, total	60,785	6,509	10.7
Physical sciences, total	10,318	823	8.0
Chemistry	6,248	563	9.0
Physics and astronomy	4,003	253	6.3
Other physical sciences	67	7	10.4
Earth, atmospheric, & ocean sciences	2,469	259	10.5
Mathematics	2,370	204	8.6
Computer sciences	2,036	151	7.4
Biological & agricultural sciences, total	18,870	1,993	10.6
Biological sciences	16,442	1,599	9.7
Agricultural sciences	2,429	394	16.2
Psychology	13,992	1,885	13.5
Social sciences	10,710	1,185	11.1
Engineering, total	10,602	880	8.2
Chemical	1,540	100	6.5
Civil	884	97	11.0
Electrical	2,973	270	9.1
Mechanical	1,658	144	8.7
Other engineering	3,549	258	7.3
American Indian	283	46	16.3%
Asian	3,448	255	7.4
Black	1,774	161	9.1
Hispanic*	2,116	302	14.3
White	63,034	6,554	10.4

* Hispanic ethnicity took precedence over race in the classification.

SOURCE: National Science Foundation/SRS, Survey of Earned Doctorates

Table 11. Baccalaureate-origin institutions of 1991-95 science and engineering (S&E) doctorate recipients, by sex of doctorate recipients and Carnegie Classification of U.S. institutions

Carnegie Classification of U.S. baccalaureate institution[1]	Number								
	Science and engineering			Sciences			Engineering		
	Total	Men	Women	Total	Men	Women	Total	Men	Women
Total known Carnegie Classification	76,599	48,928	27,671	64,699	38,625	26,074	11,900	10,303	1,597
Research universities	42,757	28,632	14,125	33,971	21,052	12,919	8,786	7,580	1,206
Doctoral universities	8,626	5,477	3,149	7,236	4,244	2,992	1,390	1,233	157
Master's colleges and universities	12,589	7,595	4,994	11,678	6,795	4,883	911	800	111
Baccalaureate colleges	11,556	6,362	5,194	11,067	5,978	5,089	489	384	105
Specialized institutions	1,071	862	209	747	556	191	324	306	18

Carnegie Classification of U.S. baccalaureate institution[1]	Percent								
	Science and engineering			Sciences			Engineering		
	Total	Men	Women	Total	Men	Women	Total	Men	Women
Total known Carnegie Classification	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Research universities	55.8	58.5	51.0	52.5	54.5	49.5	73.8	73.6	75.5
Doctoral universities	11.3	11.2	11.4	11.2	11.0	11.5	11.7	12.0	9.8
Master's colleges and universities	16.4	15.5	18.0	18.0	17.6	18.7	7.7	7.8	7.0
Baccalaureate colleges	15.1	13.0	18.8	17.1	15.5	19.5	4.1	3.7	6.6
Specialized institutions	1.4	1.8	0.8	1.2	1.4	0.7	2.7	3.0	1.1

[1] Excludes foreign institutions and U.S. institutions that closed or for which classifications could not be determined.

SOURCE: National Science Foundation/SRS, Survey of Earned Doctorates

Table 12. Top 25 institutions that were baccalaureate origins of 1991-95 female science and engineering (S&E) doctorate recipients, ranked according to total S&E doctorates, by field of doctorate

Baccalaureate-origin institution	Total S&E	Total sciences	Field of science							Total engineering
			Physical sciences[1]	Mathematics	Computer sciences	Biological sciences	Agricultural sciences	Psychology	Social sciences	
University of California-Berkeley	509	458	54	11	6	142	9	119	117	51
Cornell University (NY)	403	368	47	2	6	134	26	104	49	35
University of Michigan-Ann Arbor	400	355	25	6	2	91	2	147	82	45
University of Illinois-Urbana-Champaign	349	307	34	5	5	115	15	82	51	42
University of California-Los Angeles	334	321	28	2	4	96	1	168	52	13
University of Wisconsin-Madison	329	311	25	5	4	90	18	105	64	18
Pennsylvania State University	266	232	16	4	2	99	17	54	40	34
University of California-Davis	241	229	21	0	2	116	18	41	31	12
Rutgers University (NJ)	234	219	29	5	3	80	10	65	27	15
Massachusetts Institute of Technology	231	151	47	5	14	64	0	7	14	80
University of Maryland-College Park	230	216	17	3	4	66	9	75	42	14
Ohio State University-Columbus	226	212	19	2	3	80	7	68	53	14
Michigan State University-East Lansing	218	205	15	0	3	68	10	69	40	13
Brown University (RI)	210	199	17	3	3	47	0	88	41	11
University of Minnesota-Minneapolis	210	198	19	0	3	64	19	55	48	12
University of Pennsylvania	206	194	13	2	3	51	1	74	50	12
Harvard University (MA)	203	195	29	9	8	54	3	34	58	8
University of Texas-Austin	201	187	14	3	1	42	1	83	43	14
University of California-San Diego	197	183	14	6	0	73	0	56	34	14
Stanford University (CA)	194	172	19	3	2	49	1	52	46	22
Yale University (CT)	184	176	19	5	3	51	1	41	56	8
University of Colorado-Boulder	180	164	19	6	2	48	1	53	37	16
Duke University (NC)	173	159	18	1	4	51	1	61	23	14
Indiana University-Bloomington	169	167	18	1	1	42	3	60	44	2
Princeton University (NJ)	166	142	22	5	4	62	0	18	31	24
Total, top 25	6,263	5,720	598	94	92	1,813	173	1,779	1,173	543
Total, all U.S. institutions	27,814	26,213	2,993	576	428	7,142	649	9,351	5,074	1,601
Top 25 as a percent of all institutions	22.5%	21.8%	19.9%	16.3%	21.5%	25.4%	26.7%	19.0%	23.1%	33.9%

[1] Includes earth, atmospheric, and oceanographic sciences.

NOTE: Rankings are based on the number of persons who responded to the Survey of Earned Doctorates.

SOURCE: National Science Foundation/SRS, Survey of Earned Doctorates

Table 13. Baccalaureate-origin institutions of 1991-95 science and engineering (S&E) doctorate recipients, by race/ethnicity of U.S. citizen doctorate recipients and Carnegie Classification of U.S. institutions

Baccalaureate-origin institution	Race/ethnicity of S&E doctorate recipients					Percent distribution				
						Race/ethnicity of S&E doctorate recipients				
	American Indian	Asian	Black	Hispanic*	White	American Indian	Asian	Black	Hispanic*	White
Total known Carnegie Classification	298	3,225	2,114	2,202	64,862	100.0%	100.0%	100.0%	100.0%	100.0%
Research universities	147	2,408	851	1,083	35,864	49.3	74.7	40.3	49.2	55.3
Doctoral universities	35	199	234	440	7,270	11.7	6.2	11.1	20.0	11.2
Master's colleges and universities	74	310	597	474	10,558	24.8	9.6	28.2	21.5	16.3
Baccalaureate colleges	40	260	401	181	10,236	13.4	8.1	19.0	8.2	15.8
Specialized institutions	2	48	31	24	934	0.7	1.5	1.5	1.1	1.4

Baccalaureate-origin institution	Race/ethnicity of science doctorate recipients					Percent distribution				
						Race/ethnicity of science doctorate recipients				
	American Indian	Asian	Black	Hispanic*	White	American Indian	Asian	Black	Hispanic*	White
Total known Carnegie Classification	264	2,309	1,874	1,937	55,643	100.0%	100.0%	100.0%	100.0%	100.0%
Research universities	123	1,633	697	900	29,111	46.6	70.7	37.2	46.5	52.3
Doctoral universities	31	137	214	404	6,175	11.7	5.9	11.4	20.9	11.1
Master's colleges and universities	71	270	554	440	9,875	26.9	11.7	29.6	22.7	17.7
Baccalaureate colleges	37	243	387	174	9,823	14.0	10.5	20.7	9.0	17.7
Specialized institutions	2	26	22	19	659	0.8	1.1	1.2	1.0	1.2

Baccalaureate-origin institution	Race/ethnicity of engineering doctorate recipients					Percent distribution				
						Race/ethnicity of engineering doctorate recipients				
	American Indian	Asian	Black	Hispanic*	White	American Indian	Asian	Black	Hispanic*	White
Total known Carnegie Classification	34	916	240	265	9,219	100.0%	100.0%	100.0%	100.0%	100.0%
Research universities	24	775	154	183	6,753	70.6	84.6	64.2	69.1	73.3
Doctoral universities	4	62	20	36	1,095	11.8	6.8	8.3	13.6	11.9
Master's colleges and universities	3	40	43	34	683	8.8	4.4	17.9	12.8	7.4
Baccalaureate colleges	3	17	14	7	413	8.8	1.9	5.8	2.6	4.5
Specialized institutions	0	22	9	5	275	0.0	2.4	3.8	1.9	3.0

* Hispanic ethnicity took precedence over race in the classification.

SOURCE: National Science Foundation/SRS, Survey of Earned Doctorates

Table 14. Top 25 institutions that were baccalaureate origins of 1991-95 science and engineering (S&E) doctorate recipients who were Hispanic U.S. citizens, ranked according to total S&E doctorates, by field of doctorate

Baccalaureate-origin institution	Total S&E	Total sciences	Field of science							Total engineering
			Physical sciences[1]	Mathematics	Computer sciences	Biological sciences	Agricultural sciences	Psychology	Social sciences	
University of Puerto Rico-Rio Piedras*	233	220	58	2	3	44	7	53	53	13
University of Puerto Rico-Mayaguez*	69	57	13	0	1	21	8	9	5	12
University of California-Berkeley	64	52	9	2	1	20	0	7	13	12
University of California-Los Angeles	42	38	5	0	1	9	0	19	4	4
University of Texas-Austin	39	32	7	0	0	8	0	9	8	7
University of Miami (FL)	37	30	6	1	0	4	0	15	4	7
Cornell University (NY)	36	28	5	0	0	11	2	6	4	8
University of New Mexico-Albuquerque*	30	27	2	0	0	9	0	12	4	3
University of California-Irvine	29	29	4	1	0	6	0	15	3	0
Massachusetts Institute of Technology	25	16	5	0	1	5	0	0	5	9
Harvard University (MA)	23	21	5	2	1	8	0	3	2	2
University of California-Santa Barbara	23	21	3	0	0	6	0	6	6	2
University of Texas-El Paso*	22	17	4	0	1	6	0	3	3	5
University of California-San Diego	22	22	8	0	0	9	0	3	2	0
Florida International University*	21	21	4	1	1	1	1	12	1	0
Texas A&M University-College Station	20	17	3	1	1	7	1	4	0	3
Stanford University (CA)	20	17	2	1	0	6	0	4	4	3
Rutgers University (NJ)	19	16	2	0	1	5	1	3	4	3
University of Maryland-College Park	19	14	0	0	0	4	0	6	4	5
University of California-Davis	19	14	2	1	0	9	0	0	2	5
Inter American University of Puerto Rico-San German*	19	19	5	0	0	2	0	10	2	0
Pontifical Catholic University of Puerto Rico*	18	18	3	0	0	7	0	7	1	0
New York University	17	17	2	0	1	1	0	11	2	0
Princeton University (NJ)	17	15	1	1	0	8	0	1	4	2
University of Florida	17	14	1	0	0	1	2	6	4	3
Total, top 25	900	792	159	13	13	217	22	224	144	108
Total, all U.S. institutions	2,090	1,844	338	44	31	450	47	586	348	248
Top 25 as a percent of all institutions	43.1%	43.0%	47.0%	29.5%	41.9%	48.2%	46.8%	38.2%	41.4%	43.9%

* Hispanic-serving institutions (with 25 percent or more Hispanic enrollment, January 1996).
[1] Includes earth, atmospheric, and oceanographic sciences.
SOURCE: National Science Foundation/SRS, Survey of Earned Doctorates

Table 14a. Top 29 institutions that were baccalaureate origins of 1991-95 science and engineering (S&E) doctorate recipients who were Puerto Rican U.S. citizens, ranked according to total S&E doctorates, by field of doctorate

Baccalaureate-origin institution	Total S&E	Total sciences	Field of science							Total engineering
			Physical sciences[1]	Mathematics	Computer sciences	Biological sciences	Agricultural sciences	Psychology	Social sciences	
University of Puerto Rico-Rio Piedras	216	203	54	2	3	39	7	48	50	13
University of Mayaguez (PR)	65	53	12	0	1	18	8	9	5	12
International American University of Puerto Rico-San German	16	16	4	0	0	2	0	8	2	0
Pontifical Catholic University Puerto Rico	16	16	2	0	0	7	0	6	1	0
Massachusetts Institute of Technology	11	7	2	0	0	3	0	0	2	4
Cornell University (NY)	10	8	0	0	0	2	2	3	1	2
Princeton University (NJ)	9	9	0	1	0	6	0	1	1	0
University of Puerto Rico-Cayey University College	9	9	3	0	0	4	0	2	0	0
Harvard University (MA)	8	8	4	0	0	2	0	0	0	0
New York University	5	5	0	0	0	0	0	4	1	0
Inter American University of Puerto Rico-Metro	5	5	1	0	0	2	0	1	1	0
Michigan State University-East Lansing	4	4	0	0	0	4	0	0	0	0
Syracuse University (NY)	4	3	0	0	0	2	0	1	0	1
The University of Sacred Heart (PR)	4	4	1	0	0	1	0	2	0	0
University of Michigan-Ann Arbor	3	3	0	0	0	1	0	0	2	0
City University of New York-City College	3	2	0	0	0	0	0	2	0	1
University of Chicago (IL)	3	3	0	1	0	0	0	0	2	0
Purdue University (IN)	3	3	2	0	0	1	0	0	0	0
Yale University (CT)	3	2	0	0	0	1	0	1	0	1
University of Pennsylvania	3	2	0	0	0	0	0	1	1	1
Boston University (MA)	3	3	1	0	0	1	0	1	0	0
University of Massachusetts-Amherst	3	3	0	0	0	1	0	2	0	0
Texas A&M University-College Station	3	2	0	0	0	1	0	1	0	1
Fordham University (NY)	3	3	0	0	0	0	0	3	0	0
State University of New York-Binghamton	3	3	0	0	0	2	0	0	1	0
Clark University (MA)	3	3	0	0	0	1	0	1	1	0
City University of New York-Lehman College	3	3	0	0	0	1	0	2	0	0
George Mason University (VA)	3	3	1	0	1	0	0	0	1	0
University of Puerto Rico-Humacao College	3	3	3	0	0	0	0	0	0	0
Total, top 29	425	389	90	4	5	102	17	99	72	36
Total, all U.S. institutions	580	525	106	9	9	134	21	151	99	55
Top 29 as a percent of all institutions	73.3%	74.1%	84.9%	60.0%	55.6%	76.1%	81.0%	65.6%	72.7%	65.5%

[1] Includes earth, atmospheric, and oceanographic sciences.

SOURCE: National Science Foundation/SRS, Survey of Earned Doctorates

Table 14b. Top 27 institutions that were baccalaureate origins of 1991-95 science and engineering (S&E) doctorate recipients who were Mexican-American U.S. citizens, ranked according to total S&E doctorates, by field of doctorate

Baccalaureate-origin institution	Total S&E	Total sciences	Field of science							Total engineering
			Physical sciences[1]	Mathematics	Computer sciences	Biological sciences	Agricultural sciences	Psychology	Social sciences	
University of Texas-Austin	26	20	3	0	0	5	0	7	5	6
University of California-Los Angeles	22	19	4	0	1	2	0	12	0	3
University of California-Berkeley	20	14	2	1	0	5	0	2	4	6
University of New Mexico	18	16	1	0	0	4	0	9	2	2
University of California-Irvine	18	18	3	0	0	2	0	10	3	0
University of California-Santa Barbara	17	16	3	0	0	6	0	4	3	1
University of Texas-El Paso	16	13	2	0	1	5	0	2	3	3
Stanford University (CA)	13	12	1	0	0	4	0	4	3	1
Texas A&M University-College Station	13	13	3	1	1	6	1	1	0	0
University of California-San Diego	13	13	4	0	0	6	0	1	2	0
University of California-Davis	12	9	2	0	0	6	0	0	1	3
San Diego State University (CA)	11	11	0	0	0	2	0	8	1	0
California State University-Los Angeles	11	11	1	0	0	2	0	3	5	0
University of California-Riverside	10	10	2	0	0	4	0	2	2	0
New Mexico State University	9	7	0	0	0	3	1	1	2	2
California State University-Fullerton	9	9	0	0	0	0	0	8	1	0
Pan-American University of Texas-Edinburg	9	9	1	0	0	0	1	6	1	0
California State University-Long Beach	8	8	0	0	0	1	0	5	2	0
University of Arizona	7	4	0	1	0	0	1	1	1	3
California Institute of Technology	6	4	2	2	0	0	0	0	0	2
Arizona State University-Tempe	6	6	0	1	0	1	1	2	1	0
University of Houston (TX)	6	6	0	2	0	0	0	3	1	0
California State University-Fresno	6	6	2	0	0	1	0	2	1	0
California State University-Northridge	6	5	0	0	0	0	0	4	1	1
Loyola Marymount University (CA)	6	6	0	0	0	1	1	4	0	0
Saint Mary's University of San Antonio (TX)	6	6	1	0	0	1	0	2	2	0
University of Texas-San Antonio	6	6	2	1	0	2	0	1	0	0
Total, top 27	310	277	39	9	3	69	6	104	47	33
Total, all U.S. institutions	570	514	77	16	5	112	12	189	103	56
Top 27 as a percent of all institutions	54.4%	53.9%	50.6%	56.2%	60.0%	61.6%	50.0%	55.0%	45.6%	58.9%

[1] Includes earth, atmospheric, and oceanographic sciences.

SOURCE: National Science Foundation/SRS, Survey of Earned Doctorates

Table 14c. Top 23 institutions that were baccalaureate origins of 1991-95 science and engineering (S&E) doctorate recipients who were "other Hispanic" U.S. citizens, ranked according to total S&E doctorates, by field of doctorate

Baccalaureate-origin institution	Total S&E	Total sciences	Field of science							Total engineering
			Physical sciences[1]	Mathematics	Computer sciences	Biological sciences	Agricultural sciences	Psychology	Social sciences	
University of California-Berkeley	43	37	7	1	1	14	0	5	9	6
University of Miami (FL)	36	29	5	1	0	4	0	15	4	7
Cornell University (NY)	22	16	4	0	0	8	0	3	1	6
University of California-Los Angeles	20	19	1	0	0	7	0	7	4	1
Florida International University	19	19	4	1	1	1	1	10	1	0
Rutgers University (NJ)	18	16	2	0	1	5	1	3	4	2
University of Puerto Rico-Rio Piedras	17	17	4	0	0	5	0	5	3	0
University of Maryland-College Park	15	12	0	0	0	3	0	5	4	3
University of Florida-Gainesville	15	13	1	0	0	1	2	5	4	2
Harvard University (MA)	14	12	1	2	1	5	0	2	1	2
University of New Mexico-Albuquerque	12	11	1	0	0	5	0	3	2	1
Georgia Institute of Technology	12	8	2	1	2	3	0	0	0	4
New York University	12	12	2	0	1	1	0	7	1	0
University of Texas-Austin	11	10	3	0	0	3	0	2	2	1
Fordham University (NY)	11	11	1	0	0	2	0	7	1	0
University of South Florida	11	10	1	0	0	3	0	4	2	1
University of California-Irvine	10	10	1	1	0	3	0	5	0	0
Massachusetts Institute of Technology	10	5	2	0	0	1	0	0	2	5
University of Illinois-Urbana-Champaign	10	6	2	0	0	3	0	1	0	4
Georgetown University (DC)	10	10	2	0	0	2	0	0	6	0
University of Arizona	8	7	2	0	1	2	0	1	1	1
University of Virginia-Charlottesville	8	7	1	0	0	1	0	2	3	1
Princeton University (NJ)	8	6	1	0	0	2	0	0	3	2
Total, top 23	352	303	50	7	8	84	4	92	58	49
Total, all U.S. institutions	940	805	155	23	17	204	14	246	146	135
Top 23 as a percent of all institutions	37.4%	37.6%	32.3%	30.4%	47.1%	41.2%	28.6%	37.4%	39.7%	36.3%

[1] Includes earth, atmospheric, and oceanographic sciences.

SOURCE: National Science Foundation/SRS, Survey of Earned Doctorates

Table 15. Top 20 institutions that were baccalaureate origins of 1991-95 science and engineering (S&E) doctorate recipients who were American Indian U.S. citizens, ranked according to total S&E doctorates, by field of doctorate

Baccalaureate-origin institution	Total S&E	Total sciences	Field of science							Total engineering
			Physical sciences[1]	Mathematics	Computer sciences	Biological sciences	Agricultural sciences	Psychology	Social sciences	
University of Oklahoma-Norman	8	7	0	0	0	1	0	5	1	1
Oklahoma State University-Stillwater	7	4	1	0	0	1	0	2	0	3
University of Illinois-Urbana-Champaign	6	5	2	0	0	1	0	1	1	1
University of California-Berkeley	6	4	0	0	0	0	0	0	4	2
Cornell University (NY)	4	3	0	0	0	2	0	0	1	1
University of Arkansas-Fayetteville	4	4	1	0	0	1	0	1	1	0
University of Central Oklahoma	4	4	0	0	0	1	0	3	0	0
University of Montana-Missoula	4	4	1	0	0	0	0	2	1	0
University of Colorado-Boulder	4	3	0	0	0	1	0	0	2	1
University of Arizona	4	3	2	0	0	1	0	0	0	1
University of California-Davis	4	4	0	0	0	2	0	0	2	0
Rutgers University-New Brunswick (NJ)	3	3	1	0	0	2	0	0	0	0
Southeast Missouri State University	3	3	1	0	0	1	0	1	0	0
University of Kansas-Lawrence	3	3	1	0	0	1	0	1	0	0
University of Delaware	3	1	0	0	0	1	0	0	0	2
University of Virginia	3	2	0	0	0	1	0	1	0	1
University of North Carolina-Chapel Hill	3	3	1	0	0	1	0	0	1	0
Auburn University (AL)	3	2	1	0	0	0	0	0	1	1
Northeastern State University (OK)	3	3	1	0	0	0	0	0	2	0
University of California-Los Angeles	3	3	0	0	0	1	0	2	0	0
Total, top 20	82	68	13	0	0	19	0	19	17	14
Total, all U.S. institutions	298	264	51	7	5	61	8	68	64	34
Top 20 as a percent of all institutions	27.5%	25.8%	25.5%	0.0%	0.0%	31.1%	0.0%	27.9%	26.6%	41.2%

[1] Includes earth, atmospheric, and oceanographic sciences.

SOURCE: National Science Foundation/SRS, Survey of Earned Doctorates

Table 16. Top 26 institutions that were baccalaureate origins of 1991-95 science and engineering (S&E) doctorate recipients who were black U.S. citizens, ranked according to total S&E doctorates, by field of doctorate

Baccalaureate-origin institution	Total S&E	Total sciences	Field of science							Total engineering
			Physical sciences[1]	Mathematics	Computer sciences	Biological sciences	Agricultural sciences	Psychology	Social sciences	
Howard University (DC)*	58	49	2	0	0	10	0	22	15	9
Spelman College (GA)*	42	38	3	0	0	6	0	19	10	4
University of Michigan-Ann Arbor	24	18	1	0	0	5	0	7	5	6
University of Maryland-College Park	23	21	4	2	0	3	0	6	6	2
Fisk University (TN)*	21	21	4	0	1	11	0	2	3	0
University of California-Berkeley	21	19	3	0	0	2	0	6	8	2
Brown University (RI)	20	18	1	0	0	3	0	10	4	2
Harvard University (MA)	19	19	1	0	0	4	1	3	10	0
Michigan State University-East Lansing	19	17	1	0	0	1	1	6	8	2
Hampton University (VA)*	19	19	1	0	0	5	0	8	5	0
Morehouse College (GA)*	19	17	2	0	1	3	0	7	4	2
Tuskegee University (AL)*	19	16	1	0	0	8	1	1	5	3
North Carolina Central University*	18	18	2	0	0	4	0	3	9	0
Lincoln University (PA)*	17	17	3	0	0	5	0	4	5	0
University of Pennsylvania	17	15	1	0	0	2	0	5	7	2
North Carolina State University-Raleigh	17	11	1	0	1	7	2	0	0	6
North Carolina Agricultural & Technical State University*	17	9	1	0	0	1	0	6	1	8
Southern University and A&M College (LA)*	17	11	1	0	0	1	1	3	5	6
Cornell University (NY)	16	12	2	0	0	4	0	4	2	4
Jackson State University (MS)*	16	15	3	0	1	4	0	4	3	1
Massachusetts Institute of Technology	15	6	4	0	0	1	0	1	0	9
Tennessee State University*	15	12	1	1	0	5	0	5	0	3
University of California-Los Angeles	15	15	2	0	0	2	0	8	3	0
Wayne State University (MI)	14	12	0	0	1	2	0	8	1	2
Princeton University (NJ)	13	8	2	0	0	4	0	1	1	5
Ohio State University-Columbus	13	12	0	0	0	0	1	6	5	1
Total, top 26	524	445	47	3	5	103	7	155	125	79
Total, all U.S. institutions	1,855	1,651	153	28	28	296	34	591	521	204
Top 26 as a percent of all institutions	28.2%	27.0%	30.7%	10.7%	17.9%	34.8%	20.6%	26.2%	24.0%	38.7%

[1] Includes earth, atmospheric, and oceanographic sciences.

* The historically black colleges and universities (HBCUs) were founded during legal segregation in the late 1800s and early 1900s for the specific purpose of educating blacks. There are currently 103 HBCUs, 86 of which award baccalaureates.

SOURCE: National Science Foundation/SRS, Survey of Earned Doctorates

Table 17. Historically black colleges and universities (HBCUs) that were baccalaureate origins of 1991-95 science and engineering (S&E) doctorate recipients who were black U.S. citizens, by field of doctorate

Field of doctorate	Baccalaureate origins in HBCUs	Baccalaureate origins of all black U.S. citizens receiving Ph.D.s	HBCUs as a percent of all institutions
Total, all fields	1,790	5,284	33.9%
Total science & engineering	499	1,855	26.9
Total sciences	455	1,651	27.6
Field of science			
Physical sciences[1]	45	153	29.4
Mathematics	3	28	10.7
Computer sciences	9	28	32.1
Biological sciences	115	296	38.9
Agricultural sciences	16	34	47.1
Psychology	139	591	23.5
Social sciences	128	521	24.6
Total engineering	44	204	21.6
Total, non-science and engineering	1,291	3,429	37.6

[1] Includes earth, atmospheric, and oceanographic sciences.

SOURCE: National Science Foundation/SRS, Survey of Earned Doctorates

Table 18. Baccalaureate-origin institutions of 10 or more 1991-95 science and engineering (S&E) doctorate recipients, ranked according to total S&E doctorates, by field of doctorate

Baccalaureate-origin institution	Field of doctorate										
	Total S&E	Physical sciences				Earth, atmospheric, & oceanographic	Mathematics	Computer sciences	Biological & agricultural sciences		
		Total	Chemistry	Physics & astronomy	Other physical sciences				Total	Biological sciences	Agricultural sciences
University of California-Berkeley	1,590	238	88	147	3	49	62	54	397	374	23
University of Illinois-Urbana-Champaign	1,129	146	84	61	1	27	16	32	343	272	71
Cornell University (NY)	1,090	150	46	99	5	29	20	31	407	346	61
University of Michigan-Ann Arbor	1,060	121	58	62	1	32	19	38	237	222	15
Massachusetts Institute of Technology	1,000	248	59	188	1	18	42	66	159	156	3
University of Wisconsin-Madison	995	108	60	44	2	42	24	28	321	257	64
Pennsylvania State University	865	95	60	34	1	35	13	13	293	241	52
University of California-Los Angeles	781	88	33	55	0	38	27	20	168	165	3
Harvard University (MA)	752	112	32	80	0	27	50	52	215	211	4
University of Minnesota-Minneapolis	712	67	45	41	1	20	22	27	221	150	71
University of Texas-Austin	681	76	28	48	0	26	18	20	122	116	6
University of California-Davis	663	75	42	30	3	33	16	7	318	271	47
Ohio State University-Columbus	635	59	30	26	3	19	17	18	176	141	35
Michigan St University-East Lansing	630	58	32	26	0	18	16	19	232	174	58
Purdue University (IN)	621	79	56	23	0	15	11	20	159	116	43
Rutgers University-New Brunswick(NJ)	620	74	51	21	2	29	20	10	221	189	32
University of Maryland-College Park	595	52	23	29	0	16	19	20	158	140	18
Texas A&M University-College Station	569	44	19	25	0	30	15	6	208	145	63
University of Washington-Seattle	560	58	21	37	0	29	18	11	150	126	24
Princeton University (NJ)	544	102	16	85	1	17	22	30	140	140	0
University of Pennsylvania	535	48	27	21	0	8	20	23	122	121	1
University of California-San Diego	535	77	42	35	0	18	28	8	182	181	1
Stanford University (CA)	519	62	17	42	3	21	18	22	136	131	5
Iowa State University	515	40	20	20	0	12	18	12	198	119	79
Virginia Polytech Institute & State University	514	52	34	18	0	16	12	13	133	95	38
University of Colorado-Boulder	500	46	22	22	2	24	19	16	128	122	6
Yale University (CT)	495	53	21	32	0	20	27	25	140	139	1
Brown University (RI)	469	30	7	23	0	29	13	30	112	110	2
Brigham Young University (UT)	460	60	35	25	0	11	12	9	98	69	29
University of Florida-Gainesville	453	49	31	18	0	11	11	5	122	90	32
University of California-Santa Barbara	453	45	28	15	2	37	14	11	132	121	11
University of Chicago (IL)	435	86	37	49	0	19	32	12	114	112	2
State University of New York-Buffalo	415	48	38	9	1	14	9	9	84	82	2
University of Massachusetts-Amherst	408	45	30	15	0	17	8	5	119	98	21
Duke University (NC)	399	41	20	20	1	16	6	16	115	114	1
University of California-Santa Cruz	393	44	26	18	0	24	15	12	124	117	7
University of Virginia-Charlottesville	389	46	25	21	0	14	10	6	90	88	2
Indiana University-Bloomington	372	50	30	20	0	19	8	11	101	92	9
Rensselaer Polytech Institute (NY)	370	86	30	56	0	5	25	14	34	34	0
University of California-Irvine	370	65	39	26	0	6	11	12	96	94	2
University of Delaware	369	65	52	13	0	16	7	5	109	91	18
California Institute of Technology	368	144	22	121	1	21	32	16	37	36	1
University of North Carolina-Chapel Hill	354	67	45	22	0	17	9	9	103	96	7
University of Arizona	354	54	21	32	1	14	8	7	83	68	15
Colorado State University	339	26	17	9	0	5	11	2	155	95	60
North Carolina State University-Raleigh	338	49	31	18	0	8	17	6	110	69	41
Northwestern University (IL)	337	47	23	23	1	6	12	13	83	82	1
University of Rochester (NY)	334	60	21	39	0	14	3	6	82	81	1

See footnote at end of table.

Table 18. Baccalaureate-origin institutions of 10 or more 1991-95 science and engineering (S&E) doctorate recipients, ranked according to total S&E doctorates, by field of doctorate
— Continued

Baccalaureate-origin institution	Field of doctorate								
	Psychology	Social science	Engineering						Total of fields[1]
			Total	Chemical	Civil	Electrical	Mechanical	Other engineering	
University of California-Berkeley	178	285	327	47	24	104	37	115	2,129
University of Illinois-Urbana-Champaign	134	97	334	41	31	115	55	92	1,598
Cornell University (NY)	152	110	191	28	10	61	31	63	1,387
University of Michigan-Ann Arbor	222	158	235	29	10	63	27	108	1,571
Massachusetts Institute of Technology	18	52	367	47	11	131	41	137	1,049
University of Wisconsin-Madison	155	123	196	48	12	49	33	54	1,481
Pennsylvania State University	99	87	230	35	12	49	30	104	1,222
University of California-Los Angeles	235	112	93	5	11	42	7	28	1,144
Harvard University (MA)	74	191	31	1	4	8	6	12	1,089
University of Minnesota-Minneapolis	83	93	149	33	11	39	28	40	1,089
University of Texas-Austin	139	113	167	37	20	51	29	30	1,117
University of California-Davis	58	70	86	17	9	17	19	24	795
Ohio State University-Columbus	104	100	142	19	10	40	22	51	1,082
Michigan St University-East Lansing	108	98	93	6	14	23	17	23	1,041
Purdue University (IN)	48	40	241	35	15	87	34	70	838
Rutgers University-New Brunswick(NJ)	105	63	98	15	5	20	9	49	899
University of Maryland-College Park	117	87	116	14	7	45	22	28	914
Texas A&M University-College Station	58	35	171	23	9	28	40	71	744
University of Washington-Seattle	88	87	121	24	14	30	14	39	850
Princeton University (NJ)	38	102	85	16	10	28	14	27	733
University of Pennsylvania	114	113	87	35	3	19	7	23	774
University of California-San Diego	84	54	84	13	2	10	11	28	633
Stanford University (CA)	72	95	93	14	10	35	13	21	772
Iowa State University	39	40	158	28	15	39	28	48	694
Virginia Polytech Institute & State University	37	29	222	30	16	50	49	75	628
University of Colorado-Boulder	76	81	110	23	13	28	6	40	722
Yale University (CT)	65	136	29	5	2	9	5	8	837
Brown University (RI)	118	83	54	4	3	19	4	24	650
Brigham Young University (UT)	92	81	97	24	15	18	29	11	838
University of Florida-Gainesville	91	62	102	11	8	28	21	38	759
University of California-Santa Barbara	62	76	58	7	3	16	10	14	657
University of Chicago (IL)	50	108	14	2	1	3	3	5	593
State University of New York-Buffalo	79	61	111	9	15	33	28	26	660
University of Massachusetts-Amherst	60	80	54	15	4	15	11	9	673
Duke University (NC)	69	43	73	3	4	17	12	37	582
University of California-Santa Cruz	73	67	14	1	1	8	0	4	544
University of Virginia-Charlottesville	78	60	85	14	2	27	12	30	588
Indiana University-Bloomington	94	84	5	0	0	3	0	2	795
Rensselaer Polytech Institute (NY)	6	6	182	34	6	54	26	72	387
University of California-Irvine	105	46	29	0	5	12	9	3	464
University of Delaware	45	46	78	30	3	26	10	7	487
California Institute of Technology	3	11	104	10	4	57	9	24	391
University of North Carolina-Chapel Hill	80	51	18	0	0	6	0	12	645
University of Arizona	55	54	79	7	8	31	9	24	580
Colorado State University	53	37	50	4	15	13	10	8	488
North Carolina State University-Raleigh	14	13	121	25	7	21	16	52	421
Northwestern University (IL)	53	60	63	13	5	14	6	25	580
University of Rochester (NY)	71	32	68	11	2	23	7	23	495

See footnote at end of table.

Table 18. Baccalaureate-origin institutions of 10 or more 1991-95 science and engineering (S&E) doctorate recipients, ranked according to total S&E doctorates, by field of doctorate
— Continued

Baccalaureate-origin institution	Field of doctorate									
	Total S&E	Physical sciences				Earth, atmospheric, & oceanographic	Mathematics	Computer sciences	Biological & agricultural sciences		
		Total	Chemistry	Physics & astronomy	Other physical sciences				Total	Biological sciences	Agricultural sciences
University of Missouri-Columbia	333	23	15	8	0	4	13	6	103	62	41
Johns Hopkins University (MD)	324	30	10	19	1	8	9	20	101	99	2
Rice University (TX)	324	61	17	41	3	9	23	25	62	62	0
University of Connecticut-Storrs	313	48	33	15	0	7	8	5	102	91	11
University of Iowa	303	33	20	13	0	9	6	8	96	92	4
State University of New York-Stony Brook	302	45	25	20	0	10	14	5	95	93	2
Case Western Reserve University (OH)	296	58	21	35	0	6	11	11	53	52	1
Boston University (MA)	288	26	12	14	0	7	7	8	58	58	0
University of Kansas	286	33	20	12	1	6	9	6	68	62	6
Washington University (MO)	282	44	16	28	0	6	8	6	67	65	2
Georgia Institute of Technology	281	38	14	24	0	6	15	9	23	21	2
University of Utah	279	42	26	16	0	10	8	16	46	45	1
University of Notre Dame (IN)	278	35	14	20	1	9	5	4	61	59	2
University of Tennessee-Knoxville	278	25	14	11	0	4	3	4	76	49	27
University of Nebraska-Lincoln	276	22	13	9	0	8	7	11	87	50	37
Louisiana State University & A&M College	272	29	15	14	0	8	7	6	78	53	25
Columbia University (NY)	270	45	15	30	0	7	12	14	41	40	1
State University of New York-Binghamton	268	34	20	14	0	6	10	7	62	60	2
Oklahoma State University	268	14	7	7	0	5	1	2	96	56	40
Oberlin College (OH)	266	43	25	18	0	15	11	5	59	57	2
Carleton College (MN)	260	80	47	33	0	28	6	6	69	66	3
Oregon State University	257	27	15	11	1	13	13	9	109	77	32
State University of New York-Albany	256	25	14	11	0	9	8	8	62	60	2
Carnegie Mellon University (PA)	250	35	13	21	1	0	6	29	42	42	0
Swarthmore College (PA)	248	37	12	25	0	3	4	6	71	70	1
University of Puerto Rico-Rio Piedras	243	58	44	14	0	3	2	4	54	47	7
College of William & Mary (VA)	240	56	37	18	1	14	4	10	71	66	5
Dartmouth College (NH)	233	45	20	23	2	23	7	13	46	42	4
Auburn University (AL)	231	21	5	16	0	4	10	3	68	52	16
New York University	229	21	13	8	0	1	8	7	43	43	0
University of Georgia	225	21	20	1	0	3	7	5	93	63	30
University of Pittsburgh (PA)	223	43	32	10	1	7	6	2	47	46	1
Arizona State University-Tempe	221	20	13	7	0	6	8	4	47	39	8
San Diego State University (CA)	220	21	17	4	0	10	4	1	31	28	3
University of Cincinnati (OH)	216	35	27	8	0	5	3	1	40	37	3
Miami University (OH)	213	28	21	7	0	11	5	4	62	56	6
University of Oklahoma-Norman	212	27	14	13	0	8	8	4	39	38	1
Southern Illinois University-Carbondale	211	24	20	4	0	6	3	3	68	44	24
University of Oregon	211	26	18	8	0	4	5	3	47	41	6
Tufts University (MA)	209	17	9	8	0	12	3	4	37	35	2
Texas Tech University	204	18	10	8	0	8	2	2	59	30	29
Washington State University-Pullman	202	11	16	3	0	2	6	7	85	55	30
Florida State University	201	25	16	9	0	13	8	10	42	40	2
Kansas State University	198	18	8	10	0	5	5	3	98	55	43
University of Vermont	196	23	17	6	0	10	4	3	80	63	17
University of Southern California	192	10	8	2	0	2	4	6	28	28	0
University of Kentucky	190	15	8	7	0	8	7	3	60	41	19

See footnote at end of table

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Table 18. Baccalaureate-origin institutions of 10 or more 1991-95 science and engineering (S&E) doctorate recipients, ranked according to total S&E doctorates, by field of doctorate — Continued

Baccalaureate-origin institution	Field of doctorate								
	Psychology	Social science	Engineering						Total all fields[1]
			Total	Chemical	Civil	Electrical	Mechanical	Other engineering	
University of Missouri-Columbia	75	55	54	10	4	15	11	14	566
Johns Hopkins University (MD)	34	38	88	16	4	15	7	44	397
Rice University (TX)	29	25	90	11	4	36	18	21	395
University of Connecticut-Storrs	68	38	39	4	6	8	13	8	463
University of Iowa	40	46	65	10	6	18	17	14	604
State University of New York-Stony Brook	61	36	36	2	0	14	3	17	416
Case Western Reserve University (OH)	32	14	113	18	5	31	13	46	386
Boston University (MA)	89	53	40	0	0	12	7	21	547
University of Kansas	73	33	58	5	12	19	9	13	540
Washington University (MO)	50	51	50	8	5	19	7	11	408
Georgia Institute of Technology	7	7	176	19	12	76	31	38	313
University of Utah	57	36	64	13	8	8	12	23	465
University of Notre Dame (IN)	59	33	72	15	3	28	8	18	389
University of Tennessee-Knoxville	36	32	98	18	9	26	12	33	507
University of Nebraska-Lincoln	36	44	61	4	11	17	10	19	493
Louisiana State University & A&M College	53	40	51	11	8	13	12	7	455
Columbia University (NY)	35	48	88	13	2	24	10	19	423
State University of New York-Binghamton	95	41	13	0	1	6	0	6	375
Oklahoma State University	50	30	70	10	6	16	20	18	456
Oberlin College (OH)	55	71	7	2	1	0	0	4	500
Carleton College (MN)	22	42	7	1	0	3	1	2	359
Oregon State University	7	18	61	9	13	18	12	9	338
State University of New York-Albany	86	55	5	0	0	2	2	1	379
Carnegie Mellon University (PA)	11	7	120	29	9	40	14	28	285
Swarthmore College (PA)	38	68	21	1	0	7	6	7	353
University of Puerto Rico-Rio Piedras	56	53	13	2	2	5	1	3	509
College of William & Mary (VA)	26	48	11	2	0	2	0	7	389
Dartmouth College (NH)	33	44	22	2	1	8	4	7	332
Auburn University (AL)	22	29	74	6	7	21	10	30	385
New York University	88	51	10	0	2	5	1	2	411
University of Georgia	39	43	14	0	3	1	0	10	499
University of Pittsburgh (PA)	28	37	53	13	3	14	8	15	412
Arizona State University-Tempe	61	30	45	6	6	11	9	13	455
San Diego State University (CA)	102	38	13	1	4	4	0	4	401
University of Cincinnati (OH)	39	24	69	6	8	18	11	26	385
Miami University (OH)	53	43	7	2	0	3	0	2	409
University of Oklahoma-Norman	53	30	43	15	5	10	5	8	403
Southern Illinois University-Carbondale	44	35	28	2	4	6	7	9	488
University of Oregon	55	63	8	1	1	2	2	2	405
Tufts University (MA)	54	42	40	11	3	11	10	5	300
Texas Tech University	40	28	47	3	5	23	6	10	358
Washington State University-Pullman	13	29	41	6	3	9	8	15	296
Florida State University	47	44	12	2	1	4	3	2	500
Kansas State University	18	14	37	9	0	9	10	9	347
University of Vermont	30	24	22	1	4	4	5	8	269
University of Southern California	59	27	58	10	2	22	2	22	292
University of Kentucky	30	26	41	10	9	8	5	9	331

See footnote at end of table.

Table 18. Baccalaureate-origin institutions of 10 or more 1991-95 science and engineering (S&E) doctorate recipients, ranked according to total S&E doctorates, by field of doctorate — Continued

Baccalaureate-origin institution	Total S&E	Field of doctorate									
		Physical sciences				Earth, atmospheric, & oceanographic	Mathematics	Computer sciences	Biological & agricultural sciences		
		Total	Chemistry	Physics & astronomy	Other physical sciences				Total	Biological sciences	Agricultural sciences
Wesleyan University (CT)	189	22	10	11	1	9	5	6	41	41	0
University of New Mexico	186	18	9	9	0	11	14	1	34	32	2
University of New Hampshire-Durham	184	15	12	3	0	9	3	2	72	62	10
Wayne State University (MI)	183	24	18	6	0	4	1	6	50	50	0
West Virginia University	183	19	13	6	0	5	4	2	58	33	25
Reed College (OR)	182	40	23	17	0	2	24	2	66	63	3
California State University-Northridge	182	10	4	6	0	4	6	2	21	21	0
California State University-Long Beach	181	15	10	4	1	4	4	5	33	31	2
Vanderbilt University (TN)	172	16	5	11	0	4	3	9	36	35	1
Lehigh University (PA)	171	32	8	24	0	4	5	5	23	23	0
St. Olaf College (MN)	171	38	25	12	1	2	29	1	47	46	1
Syracuse University (NY)	170	19	12	7	0	7	7	7	45	43	2
Clemson University (SC)	170	19	15	4	0	5	6	4	47	37	10
San Francisco State University (CA)	170	17	8	9	0	9	4	0	41	39	2
Brandeis University (MA)	166	14	8	6	0	0	5	8	30	30	0
Michigan Technological University	166	23	12	11	0	9	3	7	29	20	9
Temple University (PA)	164	24	18	6	0	3	10	1	31	31	0
University of California-Riverside	163	18	9	9	0	12	7	2	60	55	5
Ohio University	162	19	8	11	0	4	6	1	37	33	4
University of Miami (FL)	162	16	11	5	0	11	4	3	43	42	1
Georgetown University (DC)	160	13	7	6	0	1	3	1	17	16	1
University of Hawaii-Manoa	157	24	15	9	0	6	3	2	34	26	8
University of Maine-Orono	155	12	7	5	0	7	5	0	70	48	22
Williams College (MA)	155	27	11	16	0	11	7	3	37	34	3
Smith College (MA)	153	13	9	4	0	9	7	2	47	45	2
Kent State University (OH)	152	21	13	8	0	4	8	7	31	26	5
University of Houston (TX)	152	14	4	10	0	3	10	3	20	19	1
California State University-Fullerton	152	9	4	5	0	5	6	5	27	24	3
University of Missouri-Rolla	151	24	7	16	1	3	5	3	8	7	1
University of Illinois-Chicago	150	27	14	13	0	3	4	9	22	20	2
George Washington University (DC)	149	11	7	4	0	3	2	7	18	17	1
Emory University (GA)	148	17	11	6	0	1	7	7	40	40	0
Bucknell University (PA)	147	28	21	7	0	6	10	3	38	37	1
University of Akron (OH)	147	32	21	11	0	1	2	2	18	16	2
Illinois State University-Normal	147	34	28	6	0	3	2	4	37	31	6
University of Rhode Island	146	9	6	3	0	12	7	0	37	26	11
City College-City University of NY	146	9	7	2	0	0	4	9	23	23	0
University of Wisconsin-Milwaukee	146	19	12	7	0	11	6	1	21	19	2
University of Arkansas-Fayetteville	146	13	12	1	0	6	4	3	51	25	26
Mississippi State University-Starkville	145	7	2	5	0	4	2	3	65	34	31
Northeastern University (MA)	138	20	11	9	0	6	3	5	27	27	0
Wellesley College (MA)	137	10	8	2	0	6	4	2	33	32	1
Pomona College (CA)	135	13	7	6	0	6	9	5	41	39	2
Queens College-City University of NY	134	10	7	3	0	5	7	7	14	14	0
University of South Carolina-Columbia	134	16	10	6	0	10	5	3	34	30	4
University of Alabama-Tuscaloosa	134	20	10	10	0	3	3	7	19	16	3
Utah State University	134	15	8	6	1	2	6	1	49	21	28

See footnote at end of table.

Table 18. Baccalaureate-origin institutions of 10 or more 1991-95 science and engineering (S&E) doctorate recipients, ranked according to total S&E doctorates, by field of doctorate — Continued

Baccalaureate-origin institution	Field of doctorate								
	Psychology	Social science	Engineering						Total all fields[1]
			Total	Chemical	Civil	Electrical	Mechanical	Other engineering	
Wesleyan University (CT)	56	42	8	0	2	1	2	3	308
University of New Mexico	46	30	32	5	3	12	4	8	320
University of New Hampshire-Durham	23	26	34	10	4	5	6	9	264
Wayne State University (MI)	52	21	25	8	3	5	2	7	394
West Virginia University	21	27	47	10	2	5	13	17	327
Reed College (OR)	9	31	8	0	0	1	1	6	241
California State University-Northridge	91	31	17	0	3	6	4	4	320
California State University-Long Beach	82	24	14	1	0	7	4	2	367
Vanderbilt University (TN)	38	15	51	7	7	18	3	16	260
Lehigh University (PA)	12	4	86	20	4	31	13	18	210
St. Olaf College (MN)	24	22	8	2	0	2	0	4	291
Syracuse University (NY)	31	24	30	3	0	18	1	8	340
Clemson University (SC)	13	12	64	21	3	12	10	18	247
San Francisco State University (CA)	59	31	9	0	3	2	1	3	344
Brandeis University (MA)	61	48	0	0	0	0	0	0	265
Michigan Technological University	0	4	91	14	9	13	18	37	182
Temple University (PA)	60	26	9	0	0	3	1	5	365
University of California-Riverside	29	31	4	0	1	2	0	1	233
Ohio University	26	41	28	6	3	8	5	6	384
University of Miami (FL)	44	18	23	0	4	9	1	9	281
Georgetown University (DC)	39	82	4	1	0	2	0	1	300
University of Hawaii-Manoa	40	37	11	0	1	1	6	3	273
University of Maine-Orono	24	12	25	7	4	6	2	6	227
Williams College (MA)	29	35	6	0	0	1	0	5	217
Smith College (MA)	39	36	0	0	0	0	0	0	285
Kent State University (OH)	53	28	0	0	0	0	0	0	346
University of Houston (TX)	49	20	33	7	0	14	6	6	329
California State University-Fullerton	82	15	3	0	0	3	0	0	267
University of Missouri-Rolla	4	2	102	13	6	22	17	44	164
University of Illinois-Chicago	26	25	34	6	3	4	14	7	284
George Washington University (DC)	29	53	26	0	5	7	3	11	258
Emory University (GA)	56	18	2	1	0	1	0	0	228
Bucknell University (PA)	16	21	25	2	3	7	4	9	206
University of Akron (OH)	35	16	41	17	4	3	7	10	243
Illinois State University-Normal	40	26	1	1	0	0	0	0	345
University of Rhode Island	24	21	36	7	1	12	9	7	227
City College-City University of NY	37	29	35	9	2	12	4	8	265
University of Wisconsin-Milwaukee	30	32	26	0	7	3	7	9	284
University of Arkansas-Fayetteville	16	18	35	2	7	11	2	13	274
Mississippi State University-Starkville	10	8	46	4	7	11	8	16	255
Northeastern University (MA)	16	13	48	4	5	17	10	12	210
Wellesley College (MA)	40	39	3	0	1	0	0	2	261
Pomona College (CA)	35	22	4	1	1	2	0	0	192
Queens College-City University of NY	58	30	3	0	0	3	0	0	301
University of South Carolina-Columbia	22	22	22	4	6	8	2	2	323
University of Alabama-Tuscaloosa	23	25	34	4	7	6	3	14	314
Utah State University	22	22	17	0	5	2	6	4	222

See footnote at end of table.

Table 18. Baccalaureate-origin institutions of 10 or more 1991-95 science and engineering (S&E) doctorate recipients, ranked according to total S&E doctorates, by field of doctorate
— Continued

Baccalaureate-origin institution	Total S&E	Field of doctorate									
		Physical sciences				Earth, atmospheric, & oceanographic	Mathematics	Computer sciences	Biological & agricultural sciences		
		Total	Chemistry	Physics & astronomy	Other physical sciences				Total	Biological sciences	Agricultural sciences
Barnard College-Columbia University (NY)	133	6	3	3	0	2	1	2	19	18	1
San Jose State University (CA)	133	18	13	5	0	7	2	1	21	21	0
Colgate University (NY)	132	26	20	6	0	17	4	2	30	28	2
Drexel University (PA)	132	16	6	10	0	4	6	5	17	15	2
Baylor University (TX)	132	9	5	4	0	5	8	5	35	32	3
Boston College (MA)	131	16	14	2	0	4	7	0	28	28	0
California Polytechnic State University-San Luis Obispo	131	30	21	8	1	5	3	1	45	26	19
University of Dayton (OH)	128	20	10	10	0	2	7	3	30	27	3
Grinnell College (IA)	128	33	26	7	0	2	8	5	33	32	1
Marquette University (WI)	127	15	12	3	0	0	3	1	38	36	2
University of Texas-Arlington	127	21	10	11	0	3	5	4	21	19	2
University of Montana-Missoula	127	13	7	6	0	11	3	3	44	28	16
Northern Illinois University	126	20	16	4	0	4	9	3	36	33	3
Wake Forest University (NC)	126	32	23	9	0	2	2	3	32	32	0
University of Wyoming-Laramie	126	15	7	7	1	13	5	1	38	28	10
Vassar College (NY)	125	8	1	7	0	4	4	6	23	22	1
California State University-Fresno	125	19	8	11	0	10	2	2	26	18	8
Mount Holyoke College (MA)	124	13	9	4	0	3	5	1	50	50	0
University of South Florida	124	13	8	5	0	5	4	4	25	24	1
Harvey Mudd College (CA)	124	65	31	34	0	1	16	4	12	11	1
New Mexico State University	123	10	6	4	0	2	1	1	37	21	16
U.S. Military Academy (NY)	122	8	1	7	0	1	10	18	2	2	0
Bryn Mawr College (PA)	121	15	10	5	0	3	8	1	25	22	3
Hunter College-City University of NY	120	12	9	3	0	1	5	1	26	25	1
Montana State University-Bozeman	120	16	7	9	0	5	8	1	34	22	12
Humboldt State University (CA)	120	10	4	6	0	19	7	4	59	37	22
Amherst College (MA)	118	13	1	12	0	6	6	1	38	35	3
Calvin College (MI)	118	25	19	6	0	3	7	9	22	19	3
Bowling Green State University (OH)	117	18	16	2	0	3	3	5	41	41	0
Kalamazoo College (MI)	115	27	22	5	0	0	2	5	33	31	2
Clark University (MA)	114	6	4	2	0	3	2	1	28	26	2
Haverford College (PA)	114	25	16	9	0	6	6	2	32	32	0
University of Idaho	113	10	8	2	0	6	1	3	40	17	23
University of Toledo (OH)	111	16	11	5	0	1	1	3	19	18	1
U.S. Air Force Academy (CO)	111	12	4	8	0	2	6	11	3	1	2
Brooklyn College-City University of NY	110	12	8	3	1	1	3	7	22	21	1
Wheaton College (IL)	110	15	11	4	0	2	3	4	14	14	0
Hope College (MI)	110	37	29	8	0	2	2	1	28	27	1
North Dakota State University	110	22	20	2	0	3	1	2	51	26	25
Worcester Polytech Institute (MA)	108	20	11	9	0	4	5	1	18	18	0
Fordham University (NY)	107	9	9	0	0	0	5	2	28	27	1
Union College (NY)	107	16	13	3	0	2	5	7	23	23	0
Tulane University of Louisiana	106	4	2	2	0	4	2	6	24	22	2
Southern Methodist University (TX)	106	7	6	1	0	4	3	2	6	6	0
Occidental College (CA)	106	23	16	7	0	5	1	1	24	22	2
Loyola University of Chicago (IL)	105	12	9	3	0	0	3	2	21	21	0
Western Michigan University	104	14	8	5	1	3	6	4	24	21	3

See footnote at end of table.

Table 18. Baccalaureate-origin institutions of 10 or more 1991-95 science and engineering (S&E) doctorate recipients, ranked according to total S&E doctorates, by field of doctorate — Continued

Baccalaureate-origin institution	Field of doctorate								
	Psychology	Social science	Engineering						Total all fields[1]
			Total	Chemical	Civil	Electrical	Mechanical	Other engineering	
Barnard College-Columbia University (NY)	58	44	1	0	0	0	0	1	238
San Jose State University (CA)	41	26	17	2	2	3	3	7	250
Colgate University (NY)	27	22	4	0	0	2	0	2	183
Drexel University (PA)	3	9	72	8	7	24	16	17	150
Baylor University (TX)	41	27	2	0	0	0	0	2	391
Boston College (MA)	50	20	6	0	0	1	0	5	268
California Polytechnic State University-San Luis Obispo	6	15	26	1	2	7	6	10	172
University of Dayton (OH)	22	6	36	4	0	12	10	10	203
Grinnell College (IA)	20	18	8	1	1	1	1	4	188
Marquette University (WI)	31	15	24	0	2	4	6	12	238
University of Texas-Arlington	16	12	43	0	4	20	12	7	205
University of Montana-Missoula	25	24	4	0	0	1	0	3	198
Northern Illinois University	30	22	2	0	0	0	0	2	351
Wake Forest University (NC)	35	19	1	0	0	1	0	0	215
University of Wyoming-Laramie	15	19	20	5	0	3	5	7	211
Vassar College (NY)	49	29	2	0	0	1	0	1	201
California State University-Fresno	39	15	12	0	3	3	3	3	251
Mount Holyoke College (MA)	27	22	3	1	0	1	0	1	216
University of South Florida	39	13	21	3	3	12	1	2	231
Harvey Mudd College (CA)	0	3	23	0	1	10	5	7	126
New Mexico State University	16	14	42	4	3	17	10	8	178
U.S. Military Academy (NY)	5	31	47	1	7	14	4	21	178
Bryn Mawr College (PA)	19	45	5	1	0	2	0	2	196
Hunter College-City University of NY	56	19	0	0	0	0	0	0	303
Montana State University-Bozeman	9	14	33	5	2	10	10	6	186
Humboldt State University (CA)	10	9	2	0	2	0	0	0	179
Amherst College (MA)	23	29	2	0	0	1	0	1	202
Calvin College (MI)	22	17	13	0	0	3	3	7	203
Bowling Green State University (OH)	23	19	5	0	0	2	1	2	301
Kalamazoo College (MI)	25	16	7	1	0	3	2	1	156
Clark University (MA)	46	24	4	1	1	0	1	1	157
Haverford College (PA)	13	27	3	1	0	0	0	2	167
University of Idaho	10	13	30	4	3	7	3	13	158
University of Toledo (OH)	30	16	25	6	3	6	3	7	206
U.S. Air Force Academy (CO)	7	18	52	0	9	12	5	26	148
Brooklyn College-City University of NY	44	21	0	0	0	0	0	0	265
Wheaton College (IL)	45	22	5	1	0	0	0	4	219
Hope College (MI)	25	12	3	0	0	2	0	1	156
North Dakota State University	10	8	13	1	2	5	1	4	150
Worcester Polytech Institute (MA)	2	2	56	11	4	14	10	17	113
Fordham University (NY)	39	22	2	0	0	1	0	1	205
Union College (NY)	25	11	18	0	1	5	3	9	138
Tulane University of Louisiana	15	17	34	5	5	7	5	12	176
Southern Methodist University (TX)	53	16	15	0	2	6	5	2	176
Occidental College (CA)	26	19	7	0	1	2	0	4	162
Loyola University of Chicag. (IL)	42	22	3	1	0	1	0	1	235
Western Michigan University	28	20	5	0	0	2	0	3	260

See footnote at end of table.

Table 18. Baccalaureate-origin institutions of 10 or more 1991-95 science and engineering (S&E) doctorate recipients, ranked according to total S&E doctorates, by field of doctorate
— Continued

Baccalaureate-origin institution	Total S&E	Field of doctorate									
		Physical sciences				Earth, atmospheric, & oceanographic	Mathematics	Computer sciences	Biological & agricultural sciences		
		Total	Chemistry	Physics & astronomy	Other physical sciences				Total	Biological sciences	Agricultural sciences
Clarkson University (NY)	103	33	23	10	0	1	2	4	5	5	0
University of North Dakota	103	10	9	1	0	2	4	3	23	22	1
California State University-Sacramento	103	20	15	5	0	3	5	2	13	12	1
Western Washington University	101	16	11	5	0	6	3	2	20	19	1
Franklin & Marshall College (PA)	100	26	23	3	0	9	2	0	18	18	0
College of Wooster (OH)	99	35	35	0	0	15	3	0	20	17	3
Indiana University of Pennsylvania	96	15	9	6	0	6	1	2	39	33	6
St. Louis University (MO)	97	16	13	3	0	3	2	2	31	30	1
Howard University (DC)	96	9	8	1	0	0	0	1	16	16	0
University of Southwestern Louisiana	96	5	1	4	0	4	6	17	17	12	5
Bates College (ME)	95	22	15	7	0	5	3	1	31	29	2
Lafayette College (PA)	95	15	9	6	0	4	4	1	23	23	0
California State Polytech University-Pomona	92	11	8	3	0	0	2	2	28	20	8
California State University-Los Angeles	92	10	8	2	0	3	1	1	20	19	1
Allegheny College (PA)	91	24	21	2	1	9	0	1	33	32	1
Bowdoin College (ME)	89	21	17	4	0	3	4	2	26	24	2
Earlham College (IN)	89	11	8	3	0	6	1	0	34	31	3
California State University-Chico	88	8	5	3	0	3	4	0	29	22	7
University of New Orleans (LA)	87	11	8	3	0	2	6	6	14	14	0
Portland State University (OR)	87	7	4	3	0	6	1	3	18	14	4
Rochester Institute of Technology (NY)	86	26	17	11	0	1	1	0	26	25	1
University of Central Florida	86	21	16	5	0	1	1	7	17	17	0
University of Texas-El Paso	86	12	6	6	0	4	0	6	16	16	0
Colorado School of Mines	86	20	5	15	0	16	2	0	1	1	0
Macalester College (MN)	85	15	8	7	0	3	2	2	21	20	1
University of Louisville (KY)	84	9	9	0	0	0	3	0	23	23	0
Oakland University (MI)	83	13	9	4	0	2	0	3	16	16	0
Trinity University (TX)	83	10	8	2	0	5	2	1	18	17	1
Colorado College	83	14	8	5	1	3	1	1	24	21	3
Middlebury College (VT)	82	16	8	7	1	9	2	2	24	22	2
Cleveland State University (OH)	81	12	9	3	0	1	2	1	12	12	0
American University (DC)	81	7	5	2	0	0	0	3	15	15	0
University of North Texas	81	9	5	4	0	0	6	6	22	21	1
University of Wisconsin-Stevens Point	80	7	7	0	0	2	1	0	47	33	14
South Dakota State University	80	7	6	1	0	0	2	0	45	23	22
Old Dominion University (VA)	80	11	5	6	0	4	3	1	17	16	1
Northern Arizona University	80	11	10	1	0	4	5	2	28	20	8
Whitman College (WA)	80	13	6	7	0	6	5	1	18	17	1
Colby College (ME)	79	8	2	5	1	7	1	0	25	23	2
Wichita State University (KS)	79	9	7	2	0	0	5	1	10	10	0
Beloit College (WI)	78	13	12	1	0	13	3	1	15	14	1
Hamilton College (NY)	78	7	5	2	0	6	3	1	24	23	1
St. Lawrence University (NY)	78	15	12	3	0	15	3	1	17	15	2
Southwest Missouri State University	78	12	7	5	0	2	3	2	27	24	3
Davidson College (NC)	78	16	10	6	0	1	7	2	17	17	0
University of Nevada-Reno	78	7	3	4	0	7	1	1	18	17	1
Virginia Commonwealth University	75	15	14	1	0	1	1	1	12	12	0

See footnote at end or table.

Table 18. Baccalaureate-origin institutions of 10 or more 1991-95 science and engineering (S&E) doctorate recipients, ranked according to total S&E doctorates, by field of doctorate
— Continued

Baccalaureate-origin institution	Field of doctorate								
	Psychology	Social science	Engineering						Total all fields[1]
			Total	Chemical	Civil	Electrical	Mechanical	Other engineering	
Clarkson University (NY)	2	2	54	13	6	10	7	18	113
University of North Dakota	30	18	13	4	0	4	1	4	177
California State University-Sacramento	24	28	8	0	4	2	0	2	211
Western Washington University	25	23	6	2	1	2	0	1	169
Franklin & Marshall College (PA)	24	17	4	1	0	2	0	1	124
College of Wooster (OH)	13	12	1	0	0	0	0	1	165
Indiana University of Pennsylvania	15	17	3	0	0	0	0	3	229
St. Louis University (MO)	23	13	7	0	1	1	0	5	199
Howard University (DC)	28	26	16	0	4	9	1	2	196
University of Southwestern Louisiana	12	17	16	6	6	2	2	0	167
Bates College (ME)	17	11	5	2	0	0	0	3	117
Lafayette College (PA)	11	14	23	6	1	8	1	7	110
California State Polytech University-Pomona	15	12	22	7	1	7	5	2	134
California State University-Los Angeles	32	22	3	0	1	2	0	0	232
Allegheny College (PA)	16	5	3	0	0	2	0	1	126
Bowdoin College (ME)	11	19	3	1	0	1	0	1	131
Earlham College (IN)	17	17	1	0	0	0	0	1	116
California State University-Chico	12	22	10	0	1	1	5	3	173
University of New Orleans (LA)	20	18	10	0	0	2	3	5	131
Portland State University (OR)	17	24	11	0	3	4	0	4	158
Rochester Institute of Technology (NY)	2	3	25	0	3	6	6	10	109
University of Central Florida	11	13	15	0	0	9	2	4	157
University of Texas-El Paso	17	15	14	0	1	4	1	8	141
Colorado School of Mines	0	4	41	12	1	1	4	23	90
Macalester College (MN)	9	29	4	0	0	2	0	2	152
University of Louisville (KY)	14	12	23	1	3	8	2	9	150
Oakland University (MI)	31	10	8	1	0	3	1	3	133
Trinity University (TX)	27	13	7	2	0	2	2	1	138
Colorado College	17	19	4	0	3	0	0	1	138
Middlebury College (VT)	9	16	4	0	0	1	0	3	148
Cleveland State University (OH)	23	5	25	5	3	6	5	6	151
American University (DC)	25	28	3	0	0	1	0	2	144
University of North Texas	24	14	0	0	0	0	0	0	252
University of Wisconsin-Stevens Point	13	6	4	4	0	0	0	0	130
South Dakota State University	7	5	14	0	3	5	2	4	136
Old Dominion University (VA)	12	12	20	0	1	8	8	3	156
Northern Arizona University	9	14	9	0	0	5	2	2	157
Whitman College (WA)	11	18	6	0	2	1	0	3	116
Colby College (ME)	13	23	2	0	1	1	0	0	117
Wichita State University (KS)	10	16	28	2	0	10	7	9	152
Beloit College (WI)	6	24	3	2	0	1	0	0	107
Hamilton College (NY)	20	10	5	0	1	2	0	2	98
St. Lawrence University (NY)	12	11	2	0	2	0	0	0	113
Southwest Missouri State University	18	8	4	1	0	1	1	1	101
Davidson College (NC)	20	11	2	0	0	0	2	0	121
University of Nevada-Reno	14	16	12	1	1	6	1	3	107
Virginia Commonwealth University	21	20	4	0	0	2	1	1	137

See footnote at end of table.

Table 18. Baccalaureate-origin institutions of 10 or more 1991-95 science and engineering (S&E) doctorate recipients, ranked according to total S&E doctorates, by field of doctorate
— Continued

Baccalaureate-origin institution	Field of doctorate										
	Total S&E	Physical sciences				Earth, atmospheric, & oceanographic	Mathematics	Computer sciences	Biological & agricultural sciences		
		Total	Chemistry	Physics & astronomy	Other physical sciences				Total	Biological sciences	Agricultural sciences
Trinity College (CT)	74	13	9	4	0	1	2	1	20	20	0
Wright State University (OH)	74	17	11	6	0	3	0	2	17	17	0
Eastern Illinois University	74	15	9	6	0	3	1	1	25	19	6
Central Michigan University	74	5	5	0	0	2	5	2	23	21	2
University of Wisconsin-Eau Claire	74	24	20	4	0	4	2	1	14	14	0
George Mason University (VA)	74	7	4	3	0	2	4	7	18	17	1
James Madison University (VA)	74	12	10	2	0	4	2	2	23	21	2
University of Tulsa (OK)	74	4	2	2	0	3	1	4	5	5	0
University of Massachusetts-Lowell	73	16	9	7	0	0	1	3	17	17	0
Texas Christian University	73	14	5	8	1	4	2	1	17	17	0
Western Illinois University	72	13	12	1	0	3	5	2	22	16	6
Furman University (SC)	72	16	16	0	0	6	2	1	16	15	1
University of Southern Mississippi	71	13	10	3	0	3	2	6	16	15	1
Louisiana Technical University	71	7	5	2	0	0	4	2	16	11	5
Alfred University (NY)	70	3	2	1	0	1	0	2	8	8	0
State University of New York-Oswego	70	13	12	1	0	2	0	3	20	19	1
Youngstown State University (OH)	70	16	14	4	0	1	3	5	7	7	0
Ball State University (IN)	70	7	7	0	0	1	1	3	11	11	0
Valparaiso University (IN)	70	15	10	5	0	2	3	0	7	7	0
University of Northern Iowa	70	16	11	7	0	1	2	1	10	8	2
University of Puerto Rico-Mayaguez	70	11	9	2	0	3	0	1	29	21	8
State University of New York-Plattsburg	69	6	6	0	0	3	1	1	32	31	1
Villanova University (PA)	69	17	8	9	0	1	1	1	19	18	1
Illinois Institute of Technology	69	16	7	9	0	0	1	8	3	3	0
Rhodes College (TN)	69	15	7	8	0	2	3	1	11	11	0
College of the Holy Cross (MA)	68	19	15	4	0	0	4	0	13	13	0
Hofstra University (NY)	68	5	3	2	0	0	2	1	15	15	0
Creighton University (NE)	67	13	10	3	0	0	0	0	17	17	0
Georgia State University	67	7	1	6	0	2	2	1	8	8	0
Santa Clara University (CA)	67	14	9	5	0	1	4	1	12	12	0
State University of New York-Geneseo	66	18	10	8	0	2	1	0	15	14	1
Bradley University (IL)	66	19	16	3	0	5	1	3	13	12	1
Kenyon College (OH)	65	13	5	8	0	0	2	1	17	17	0
Gustavus Adolphus College (MN)	65	20	12	8	0	4	2	0	12	11	1
Sonoma State University (CA)	65	20	13	7	0	4	1	1	10	9	1
Millersville University of Pennsylvania	64	9	8	1	0	4	4	3	17	17	0
U.S. Naval Academy (MD)	64	8	3	4	1	4	3	5	1	1	0
Catholic University of America (DC)	64	6	2	4	0	0	2	1	9	9	0
Wittenberg University (OH)	63	18	11	7	0	2	1	0	18	15	3
Fairleigh Dickinson University (NJ)	62	5	4	1	0	3	4	0	14	14	0
Lawrence University (WI)	62	9	5	4	0	3	1	2	28	23	5
University of Maryland-Baltimore County	62	12	10	2	0	0	2	2	22	22	0
University of Denver (CO)	62	7	5	2	0	1	2	4	12	12	0
State University of New York-Oneonta	61	16	15	1	0	10	3	1	7	7	0
Tennessee Technological University	61	12	4	8	0	0	2	2	8	6	2
Polytechnic University (NY)	59	7	5	2	0	2	5	3	5	5	0
Augustana College (IL)	59	16	16	2	0	5	2	2	11	7	4

Table 18. Baccalaureate-origin institutions of 10 or more 1991-95 science and engineering (S&E) doctorate recipients, ranked according to total S&E doctorates, by field of doctorate — Continued

Baccalaureate-origin institution	Field of doctorate								
	Psychology	Social science	Engineering						Total all fields[1]
			Total	Chemical	Civil	Electrical	Mechanical	Other engineering	
Trinity College (CT)	23	10	4	0	0	1	2	1	109
Wright State University (OH)	7	7	21	0	0	4	4	13	115
Eastern Illinois University	13	13	3	0	0	0	2	1	209
Central Michigan University	22	14	1	0	0	0	0	1	182
University of Wisconsin-Eau Claire	18	8	3	0	1	0	0	2	154
George Mason University (VA)	12	20	4	0	0	3	0	1	124
James Madison University (VA)	22	8	1	0	0	0	0	1	158
University of Tulsa (OK)	19	13	25	15	0	5	3	2	129
University of Massachusetts-Lowell	6	0	30	4	2	11	9	4	102
Texas Christian University	22	13	0	0	0	0	0	0	151
Western Illinois University	11	13	3	1	0	0	0	2	160
Furman University (SC)	14	14	1	0	0	0	0	1	164
University of Southern Mississippi	19	6	6	1	0	2	0	3	234
Louisiana Technical University	5	6	31	4	8	6	6	7	143
Alfred University (NY)	9	1	46	1	0	2	0	43	83
State University of New York-Oswego	16	13	3	0	1	1	0	1	149
Youngstown State University (OH)	6	16	14	1	1	7	3	2	140
Ball State University (IN)	28	19	0	0	0	0	0	0	222
Valparaiso University (IN)	16	16	11	1	1	5	2	2	128
University of Northern Iowa	22	11	5	1	0	0	1	3	185
University of Puerto Rico-Mayaguez	9	5	12	4	1	3	1	3	105
State University of New York-Plattsburg	18	5	1	0	0	0	0	1	121
Villanova University (PA)	12	7	11	2	0	3	3	3	132
Illinois Institute of Technology	1	2	38	8	1	13	8	8	75
Rhodes College (TN)	24	10	3	0	1	2	0	0	96
College of the Holy Cross (MA)	21	7	4	1	0	0	0	3	136
Hofstra University (NY)	37	6	2	0	0	1	0	1	141
Creighton University (NE)	24	12	1	0	0	0	0	1	111
Georgia State University	31	15	1	0	0	0	1	0	192
Santa Clara University (CA)	22	6	7	0	1	2	2	2	98
State University of New York-Geneseo	15	14	1	0	0	0	0	1	120
Bradley University (IL)	11	7	7	0	0	2	2	3	111
Kenyon College (OH)	12	18	2	0	0	1	0	1	99
Gustavus Adolphus College (MN)	15	8	4	1	1	1	0	1	110
Sonoma State University (CA)	16	11	2	0	0	0	0	2	103
Millersville University of Pennsylvania	16	7	4	0	0	1	0	3	126
U.S. Naval Academy (MD)	2	12	29	0	1	11	6	11	88
Catholic University of America (DC)	18	15	13	0	2	6	2	3	124
Wittenberg University (OH)	10	14	0	0	0	0	0	0	112
Fairleigh Dickinson University (NJ)	20	12	4	0	0	4	0	0	93
Lawrence University (WI)	8	8	3	0	1	1	0	1	108
University of Maryland-Baltimore County	12	8	4	0	0	1	1	2	82
University of Denver (CO)	22	13	1	0	0	0	0	1	130
State University of New York-Oneonta	10	10	4	0	1	0	0	3	117
Tennessee Technological University	4	2	31	3	2	12	10	4	103
Polytechnic University (NY)	1	0	36	0	5	18	3	10	66
Augustana College (IL)	16	5	0	0	0	0	0	0	88

See footnote at end of table.

Table 18. Baccalaureate-origin institutions of 10 or more 1991-95 science and engineering (S&E) doctorate recipients, ranked according to total S&E doctorates, by field of doctorate
— Continued

Baccalaureate-origin institution	Field of doctorate										
	Total S&E	Physical sciences				Earth, atmospheric, & oceanographic	Mathematics	Computer sciences	Biological & agricultural sciences		
		Total	Chemistry	Physics & astronomy	Other physical sciences				Total	Biological sciences	Agricultural sciences
Eastern Michigan University	59	12	10	2	0	1	0	4	19	19	0
St. John's University (MN)	59	16	14	2	0	2	1	3	16	15	1
University of Memphis (TN)	59	4	3	1	0	0	6	0	10	9	1
University of Puget Sound (WA)	59	15	11	4	0	4	3	1	13	13	0
St. John's University-Queens (NY)	58	12	10	2	0	0	1	5	22	22	0
Antioch College (OH)	58	1	1	0	0	3	1	2	8	7	1
Xavier University (OH)	58	14	4	10	0	1	2	3	10	10	0
Florida Institute of Technology	58	12	7	5	0	2	1	4	15	14	1
Evergreen State College (WA)	58	4	4	0	0	1	0	1	24	21	3
SUNY Environmental Science & Forestry	57	7	7	0	0	1	0	2	39	26	13
La Salle University (PA)	57	11	6	5	0	2	2	2	14	14	0
Knox College (IL)	57	9	6	3	0	5	2	0	11	11	0
University of Missouri-Saint Louis	57	17	9	8	0	0	4	0	10	9	1
University of North Carolina-Charlotte	57	8	4	4	0	1	3	2	10	10	0
Hendrix College (AR)	57	11	7	4	0	0	4	0	20	20	0
University of Massachusetts-Dartmouth	56	14	10	4	0	0	1	0	23	21	2
Connecticut College	56	4	3	1	0	2	1	0	19	18	1
Dickinson College (PA)	56	8	4	4	0	5	1	1	14	14	0
University of Scranton (PA)	56	18	16	2	0	0	1	3	20	19	1
Florida Atlantic University	56	6	3	3	0	3	0	1	11	11	0
Loyola Marymount University (CA)	56	9	5	4	0	1	0	2	16	14	2
St. Joseph's University (PA)	55	7	6	1	0	1	0	1	26	26	0
John Carroll University (OH)	55	7	4	3	0	0	2	1	20	20	0
Rose-Hulman Institute of Technology (IN)	55	14	9	4	1	0	6	4	2	1	1
Columbia College-Columbia University (NY)	54	4	1	3	0	1	4	2	16	16	0
Gettysburg College (PA)	54	15	14	1	0	2	0	1	10	9	1
Muhlenberg College (PA)	54	4	3	1	0	1	3	1	27	27	0
Mankato State University (MN)	54	14	12	2	0	1	2	6	10	9	1
University of Northern Colorado	54	10	6	4	0	1	2	1	9	7	2
University of Massachusetts, Harbor Campus	53	13	13	0	0	1	0	0	9	9	0
Manhattan College (NY)	53	9	6	3	0	2	1	1	13	13	0
State University of New York-Fredonia	53	17	15	2	0	3	2	0	16	16	0
University of Wisconsin-Oshkosh	53	8	6	2	0	9	1	3	16	14	2
Idaho State University	53	10	9	1	0	1	4	0	12	11	1
Providence College (RI)	52	6	6	0	0	1	6	0	15	14	1
Juniata College (PA)	52	16	15	1	0	5	0	0	19	18	1
University of Wisconsin-River Falls	52	22	15	6	1	0	0	0	20	5	15
St. Cloud State University (MN)	52	6	4	1	1	2	4	1	15	14	1
Towson State University (MD)	52	6	1	5	0	0	4	3	14	14	0
University of North Carolina-Greensboro	52	9	8	1	0	1	0	0	8	8	0
Florida International University	52	8	7	1	0	1	4	1	5	4	1
New Mexico Institute of Mining & Technology	52	19	7	11	1	9	3	2	6	6	0
California State University-Hayward	52	11	6	5	0	0	1	3	11	10	1
State University of New York-Potsdam	51	16	12	4	0	0	2	1	9	9	0
Denison University (OH)	51	9	4	5	0	3	0	3	5	5	0
Drake University (IA)	51	11	6	5	0	1	3	1	9	9	0
Luther College (IA)	51	8	7	1	0	0	2	2	19	17	2

See footnote at end of table.

Table 18. Baccalaureate-origin institutions of 10 or more 1991-95 science and engineering (S&E) doctorate recipients, ranked according to total S&E doctorates, by field of doctorate
— Continued

Baccalaureate-origin institution	Field of doctorate								
	Psychology	Social science	Engineering						Total all fields[1]
			Total	Chemical	Civil	Electrical	Mechanical	Other engineering	
Eastern Michigan University	17	4	2	0	0	0	0	2	176
St. John's University (MN)	8	8	5	0	0	1	0	4	90
University of Memphis (TN)	19	8	12	0	1	4	4	3	172
University of Puget Sound (WA)	11	10	2	0	0	0	0	2	97
St. John's University-Queens (NY)	12	4	2	0	0	0	1	1	130
Antioch College (OH)	19	24	0	0	0	0	0	0	114
Xavier University (OH)	14	12	2	0	1	1	0	0	81
Florida Institute of Technology	2	1	21	3	4	7	3	4	62
Evergreen State College (WA)	14	14	0	0	0	0	0	0	91
SUNY Environmental Science & Forestry	1	1	6	0	4	0	0	2	60
La Salle University (PA)	18	8	0	0	0	0	0	0	121
Knox College (IL)	15	13	2	1	0	1	0	0	98
University of Missouri-Saint Louis	14	12	0	0	0	0	0	0	118
University of North Carolina-Charlotte	14	10	9	0	1	6	0	2	96
Hendrix College (AR)	16	4	2	0	0	1	0	1	85
University of Massachusetts-Dartmouth	6	4	8	0	2	4	1	1	71
Connecticut College	20	10	0	0	0	0	0	0	106
Dickinson College (PA)	14	10	3	0	0	0	0	3	100
University of Scranton (PA)	9	4	1	1	0	0	0	0	88
Florida Atlantic University	19	8	8	0	0	7	0	1	115
Loyola Marymount University (CA)	22	3	3	0	1	1	0	1	102
St. Joseph's University (PA)	10	10	0	0	0	0	0	0	80
John Carroll University (OH)	12	8	5	0	0	4	0	1	92
Rose-Hulman Institute of Technology (IN)	0	1	28	10	1	7	6	4	59
Columbia College-Columbia University (NY)	10	13	4	1	0	2	0	1	98
Gettysburg College (PA)	17	8	1	0	0	1	0	0	85
Muhlenberg College (PA)	12	4	2	1	0	1	0	0	96
Mankato State University (MN)	7	10	4	0	1	1	0	2	123
University of Northern Colorado	13	18	0	0	0	0	0	0	167
University of Massachusetts, Harbor Campus	17	11	2	0	1	1	0	0	130
Manhattan College (NY)	6	5	16	8	1	4	2	1	87
State University of New York-Fredonia	4	8	3	2	0	0	0	1	116
University of Wisconsin-Oshkosh	10	5	1	0	0	0	0	1	110
Idaho State University	9	13	4	1	1	0	1	1	91
Providence College (RI)	8	12	4	1	0	2	0	1	78
Juniata College (PA)	6	4	2	0	0	0	0	2	66
University of Wisconsin-River Falls	1	5	4	1	0	0	1	2	74
St. Cloud State University (MN)	12	10	2	0	0	0	0	2	115
Towson State University (MD)	13	8	4	1	0	1	0	2	110
University of North Carolina-Greensboro	18	15	1	0	0	0	0	1	167
Florida International University	19	12	2	0	1	0	1	0	115
New Mexico Institute of Mining & Technology	0	0	13	1	0	2	0	10	53
California State University-Hayward	17	9	0	0	0	0	0	0	84
State University of New York-Potsdam	11	9	3	0	0	0	0	3	110
Denison University (OH)	21	8	2	0	0	0	0	2	86
Drake University (IA)	9	16	1	0	0	0	0	1	116
Luther College (IA)	11	6	3	0	0	0	0	3	107

See footnote at end of table.

Table 18. Baccalaureate-origin institutions of 10 or more 1991-95 science and engineering (S&E) doctorate recipients, ranked according to total S&E doctorates, by field of doctorate
— Continued

Baccalaureate-origin institution	Field of doctorate										
	Total S&E	Physical sciences				Earth, atmospheric, & oceanographic	Mathematics	Computer sciences	Biological & agricultural sciences		
		Total	Chemistry	Physics & astronomy	Other physical sciences				Total	Biological sciences	Agricultural sciences
Loyola College in Maryland	51	13	10	3	0	0	3	2	13	13	0
College of Charleston (SC)	51	13	11	2	0	2	0	2	16	16	0
Montclair State University (NJ)	50	9	8	1	0	3	0	1	12	10	2
DePaul University (IL)	50	9	3	6	0	0	3	4	11	10	1
New College/University of South Florida	50	11	8	3	0	2	5	3	11	11	0
University of Mississippi-Oxford	50	5	3	2	0	1	2	2	14	13	1
Radcliffe College (MA)	49	3	2	1	0	0	0	2	13	12	1
State University of New York-Brockport	49	4	4	0	0	4	2	0	11	10	1
Stevens Institute of Technology (NJ)	49	19	11	8	0	0	2	3	0	0	0
Depauw University (IN)	49	9	8	1	0	1	1	1	14	12	2
University of Nebraska-Omaha	49	9	8	1	0	4	1	3	11	9	2
Stephen F. Austin State University	49	4	4	0	0	1	2	2	23	14	9
State University of New York-Cortland	48	4	2	2	0	3	1	1	11	10	1
Wabash College (IN)	48	20	14	6	0	0	1	0	19	17	2
University of Minnesota-Duluth	48	10	9	1	0	5	1	1	17	16	1
Western Kentucky University	48	12	8	4	0	1	2	4	18	12	6
Lewis and Clark College (OR)	48	4	3	1	0	0	1	0	22	22	0
Fairfield University (CT)	47	9	7	2	0	0	0	0	16	14	2
Canisius College (NY)	47	13	12	1	0	1	1	1	18	17	1
Skidmore College (NY)	47	5	5	0	0	0	0	0	14	14	0
State University of New York-New Paltz	47	2	2	0	0	0	1	4	8	7	1
Ohio Wesleyan University	47	5	3	2	0	1	3	1	15	14	1
Butler University (IN)	47	13	10	3	0	0	1	1	11	11	0
Southern Illinois University-Edwardsville	47	15	8	7	0	0	0	2	12	12	0
Moorhead State University (MN)	47	3	3	0	0	0	4	2	12	8	4
University of Missouri-Kansas City	47	6	6	0	0	0	2	3	12	11	1
University of South Dakota	47	9	9	0	0	0	3	1	8	8	1
University of Texas-Dallas	47	5	4	1	0	2	2	2	5	5	0
Pacific Lutheran University (WA)	47	11	8	3	0	0	1	1	12	12	0
Adelphi University (NY)	46	7	6	1	0	0	0	0	9	9	0
Albright College (PA)	46	9	8	1	0	0	1	0	28	19	1
Shippensburg University of Pennsylvania	46	9	9	0	0	0	5	2	5	5	0
University of Richmond (VA)	46	11	10	1	0	0	0	1	13	13	0
State University of Florida-unknown branch	46	9	8	1	0	1	0	2	18	18	0
Murray State University (KY)	46	8	7	1	0	2	0	2	16	8	8
Boise State University (ID)	46	10	7	3	0	2	1	0	6	5	1
Hampshire College (MA)	45	4	2	2	0	1	3	2	14	13	1
Cooper Union (NY)	45	3	2	1	0	0	4	3	0	0	0
University of Detroit Mercy (MI)	45	6	6	0	0	0	1	1	5	5	0
University of Alabama-Birmingham	45	10	4	6	0	1	2	1	11	11	0
Philadelphia College of Pharmacy & Scienc	44	13	13	0	0	0	0	0	31	31	0
Spelman College (GA)	43	3	3	0	0	0	0	0	6	6	0
University of Alaska	43	13	7	6	0	3	4	1	11	9	2
Hobart & William Smith College (NY)	42	3	3	0	0	2	1	0	15	14	1
Gannon University (PA)	42	18	18	0	0	0	0	0	11	11	0
Northern Michigan University	42	3	3	0	0	1	2	0	11	10	1
Northeast Missouri State University	42	12	11	1	0	0	4	2	9	7	2

See footnote at end of table.

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Table 18. Baccalaureate-origin institutions of 10 or more 1991-95 science and engineering (S&E) doctorate recipients, ranked according to total S&E doctorates, by field of doctorate
— Continued

Baccalaureate-origin institution	Field of doctorate								
	Psychology	Social science	Engineering						Total all fields[1]
			Total	Chemical	Civil	Electrical	Mechanical	Other engineering	
Loyola College in Maryland	9	7	4	0	0	1	0	3	74
College of Charleston (SC)	7	8	3	0	1	1	0	1	87
Montclair State University (NJ)	19	4	2	0	0	1	0	1	129
DePaul University (IL)	17	6	0	0	0	0	0	0	92
New College/University of South Florida	8	10	0	0	0	0	0	0	82
University of Mississippi-Oxford	11	3	12	2	2	4	3	1	144
Radcliffe College (MA)	11	13	1	0	0	0	0	1	108
State University of New York-Brockport	14	14	0	0	0	0	0	0	112
Stevens Institute of Technology (NJ)	2	0	23	3	1	9	1	9	51
Depauw University (IN)	16	6	1	0	1	0	0	0	104
University of Nebraska-Omaha	4	12	5	0	2	1	1	1	108
Stephen F. Austin State University	9	8	0	0	0	0	0	0	133
State University of New York-Cortland	14	12	2	0	0	0	0	2	137
Wabash College (IN)	6	2	0	0	0	0	0	0	67
University of Minnesota-Duluth	8	5	1	0	0	0	0	1	78
Western Kentucky University	5	4	2	0	0	0	1	1	127
Lewis and Clark College (OR)	13	7	1	0	0	0	0	1	86
Fairfield University (CT)	19	3	0	0	0	0	0	0	84
Canisius College (NY)	9	4	0	0	0	0	0	0	77
Skidmore College (NY)	15	13	0	0	0	0	0	0	83
State University of New York-New Paltz	18	13	1	0	0	0	0	1	96
Ohio Wesleyan University	11	9	2	0	1	1	0	0	87
Butler University (IN)	13	7	1	0	0	0	1	0	70
Southern Illinois University-Edwardsville	4	9	5	0	3	1	0	1	103
Moorhead State University (MN)	14	9	3	0	0	2	0	1	103
University of Missouri-Kansas City	13	8	3	0	0	2	1	0	113
University of South Dakota	19	6	0	0	0	0	0	0	101
University of Texas-Dallas	20	9	2	0	1	1	0	0	72
Pacific Lutheran University (WA)	5	13	4	0	0	1	0	3	96
Adelphi University (NY)	23	7	0	0	0	0	0	0	110
Albright College (PA)	13	3	0	0	0	0	0	0	84
Shippensburg University of Pennsylvania	12	9	4	0	1	1	0	2	100
University of Richmond (VA)	13	8	0	0	0	0	0	0	86
State University of Florida-unknown branch	10	6	2	0	0	0	0	2	112
Murray State University (KY)	5	9	4	1	1	1	0	1	119
Boise State University (ID)	12	12	3	0	0	1	0	2	91
Hampshire College (MA)	11	10	0	0	0	0	0	0	71
Cooper Union (NY)	0	1	34	11	2	7	8	6	51
University of Detroit Mercy (MI)	14	10	8	1	1	2	2	2	91
University of Alabama-Birmingham	9	7	4	0	0	1	0	3	104
Philadelphia College of Pharmacy & Science	0	0	0	0	0	0	0	0	51
Spelman College (GA)	20	10	4	1	0	1	0	2	80
University of Alaska	3	4	4	0	2	0	0	2	58
Hobart & William Smith College (NY)	11	9	1	1	0	0	0	0	79
Gannon University (PA)	9	2	2	0	0	1	1	0	69
Northern Michigan University	15	6	1	1	0	0	0	0	93
Northeast Missouri State University	6	7	2	0	0	0	0	2	106

See footnote at end of table.

Table 18. Baccalaureate-origin institutions of 10 or more 1991-95 science and engineering (S&E) doctorate recipients, ranked according to total S&E doctorates, by field of doctorate
— Continued

Baccalaureate-origin institution	Field of doctorate										
	Total S&E	Physical sciences				Earth, atmospheric, & oceanographic	Mathematics	Computer sciences	Biological & agricultural sciences		
		Total	Chemistry	Physics & astronomy	Other physical sciences				Total	Biological sciences	Agricultural sciences
University of Central Oklahoma	42	2	0	2	0	1	3	1	11	10	1
Andrews University (MI)	41	16	12	4	0	1	1	2	14	14	0
Southeast Missouri State University	41	6	6	0	0	2	0	1	14	10	4
East Tennessee State University	41	10	6	4	0	1	0	0	18	16	2
Northeast Louisiana University	41	8	4	4	0	1	4	2	8	6	2
University of the Pacific (CA)	41	3	2	1	0	2	2	1	9	9	0
State University of New York-Purchase	40	12	11	1	0	1	0	1	10	10	0
Drew University (NJ)	40	5	3	2	0	1	1	2	11	11	0
University of Wisconsin-La Crosse	40	7	6	1	0	0	3	3	12	11	1
University of St. Thomas (MN)	40	4	3	1	0	0	1	2	10	9	1
Marshall University (WV)	40	5	5	0	0	3	1	1	7	6	1
Eckerd College (FL)	40	4	4	0	0	0	0	1	14	14	0
Eastern Kentucky University	40	5	5	0	0	1	1	2	14	11	3
Southwest Texas State University	40	5	5	0	0	0	4	1	13	11	2
Eastern Washington University	40	7	4	3	0	1	1	0	8	7	1
Hiram College (OH)	39	6	5	1	0	0	0	0	23	22	1
University of Michigan-Dearborn	39	11	9	2	0	0	1	0	6	6	0
Concordia College-Moorhead (MN)	39	5	5	0	0	0	4	0	9	8	1
South Dakota School of Mines & Technology	39	9	4	4	1	5	2	2	0	0	0
Appalachian State University (NC)	39	3	2	1	0	5	0	2	8	8	0
University of Tennessee-Chattanooga	39	7	5	2	0	0	0	0	7	7	0
Hamline University (MN)	38	14	11	3	0	0	0	0	9	8	1
Mary Washington College (VA)	38	3	3	0	0	2	1	2	11	11	0
University of North Carolina-Wilmington	38	7	5	2	0	3	0	0	18	18	0
University of South Alabama	38	5	4	1	0	1	4	0	11	10	1
University of Dallas (TX)	38	10	3	7	0	0	4	1	12	12	0
University of Texas-San Antonio	38	9	7	2	0	2	2	0	12	10	2
Fort Lewis College (CO)	38	19	18	1	0	0	0	0	8	7	1
California State University-Carson	38	5	3	2	0	0	0	1	3	3	0
Grove City College (PA)	37	10	9	1	0	1	3	2	7	6	1
Goshen College (IN)	37	8	4	4	0	0	1	0	13	13	0
Grand Valley State University (MI)	37	2	1	1	0	3	2	2	9	9	0
Loyola University (LA)	37	1	0	1	0	0	2	1	6	6	0
Abilene Christian University (TX)	37	11	8	3	0	0	2	4	7	4	3
Metropolitan State College (CO)	37	5	3	2	0	1	1	1	5	5	0
Le Moyne College (NY)	36	5	5	0	0	0	0	0	13	12	1
Long Island University-Southampton Campus	36	4	4	0	0	5	0	0	19	17	2
Ursinus College (PA)	36	11	8	3	0	0	0	0	11	11	0
Indiana State University	36	3	3	0	0	1	2	2	8	5	1
Northeastern Illinois University	36	8	5	1	0	2	1	2	6	5	1
Alma College (MI)	36	1	1	0	0	0	1	0	18	14	4
Ripon College (WI)	36	10	9	1	0	0	0	0	16	12	4
Bethel College (MN)	36	7	4	3	0	0	1	2	4	3	1
Tuskegee University (AL)	36	1	1	0	0	0	0	0	25	15	10
Southern Oregon State College	36	9	6	2	1	0	2	1	13	11	2
Pitzer College (CA)	36	0	0	0	0	0	0	0	5	5	0
Siena College (NY)	35	5	4	1	0	0	3	0	16	16	0

See footnote at end of table.

Table 18. Baccalaureate-origin institutions of 10 or more 1991-95 science and engineering (S&E) doctorate recipients, ranked according to total S&E doctorates, by field of doctorate — Continued

Baccalaureate-origin institution	Field of doctorate								
	Psychology	Social science	Engineering						Total all fields[1]
			Total	Chemical	Civil	Electrical	Mechanical	Other engineering	
University of Central Oklahoma	14	6	4	0	1	1	0	2	117
Andrews University (MI)	3	1	3	0	0	2	0	1	81
Southeast Missouri State University	11	7	0	0	0	0	0	0	131
East Tennessee State University	5	7	0	0	0	0	0	0	128
Northeast Louisiana University	10	6	2	0	0	1	0	1	113
University of the Pacific (CA)	13	7	4	0	0	3	1	0	91
State University of New York-Purchase	11	5	0	0	0	0	0	0	70
Drew University (NJ)	9	10	1	0	1	0	0	0	64
University of Wisconsin-La Crosse	11	3	1	0	1	0	0	0	104
University of St. Thomas (MN)	12	11	0	0	0	0	0	0	59
Marshall University (WV)	10	12	1	0	0	0	0	1	104
Eckerd College (FL)	12	8	1	0	0	0	0	1	61
Eastern Kentucky University	9	7	1	0	0	1	0	0	88
Southwest Texas State University	11	6	0	0	0	0	0	0	128
Eastern Washington University	12	11	0	0	0	0	0	0	93
Hiram College (OH)	7	3	0	0	0	0	0	0	63
University of Michigan-Dearborn	9	5	7	0	0	2	2	3	44
Concordia College-Moorhead (MN)	14	6	1	0	0	0	0	1	81
South Dakota School of Mines & Technology	0	0	21	1	4	3	5	8	41
Appalachian State University (NC)	7	13	1	0	0	0	0	1	130
University of Tennessee-Chattanooga	9	9	7	0	0	5	1	1	72
Hamline University (MN)	7	7	1	1	0	0	0	0	55
Mary Washington College (VA)	11	6	2	1	0	0	0	1	70
University of North Carolina-Wilmington	7	3	0	0	0	0	0	0	48
University of South Alabama	8	3	6	0	0	3	1	2	78
University of Dallas (TX)	3	7	1	0	0	1	0	0	59
University of Texas-San Antonio	9	3	1	0	0	0	1	0	55
Fort Lewis College (CO)	5	6	0	0	0	0	0	0	50
California State University-Carson	17	12	0	0	0	0	0	0	53
Grove City College (PA)	7	1	6	1	0	0	0	5	63
Goshen College (IN)	5	8	2	0	1	0	0	1	80
Grand Valley State University (MI)	11	8	0	0	0	0	0	0	68
Loyola University (LA)	14	10	3	0	0	2	0	1	72
Abilene Christian University (TX)	6	6	1	1	0	0	0	0	98
Metropolitan State College (CO)	12	11	1	0	0	1	0	0	69
Le Moyne College (NY)	9	8	1	0	0	0	0	1	58
Long Island University-Southampton Campus	6	1	1	0	0	0	0	1	40
Ursinus College (PA)	9	2	3	0	0	0	0	3	63
Indiana State University	13	6	3	0	0	0	1	2	136
Northeastern Illinois University	9	10	0	0	0	0	0	0	84
Alma College (MI)	7	8	1	0	0	0	0	1	59
Ripon College (WI)	4	4	2	0	0	0	0	2	53
Bethel College (MN)	14	6	2	0	0	0	1	1	57
Tuskegee University (AL)	1	5	4	0	0	0	3	1	85
Southern Oregon State College	3	7	1	0	0	0	0	1	58
Pitzer College (CA)	21	10	0	0	0	0	0	0	55
Siena College (NY)	4	5	2	0	0	1	0	1	50

See footnote at end of table.

09
101
102

Table 18. Baccalaureate-origin institutions of 10 or more 1991-95 science and engineering (S&E) doctorate recipients, ranked according to total S&E doctorates, by field of doctorate — Continued

Baccalaureate-origin institution	Total S&E	Field of doctorate									
		Physical sciences				Earth, atmospheric, & oceanographic	Mathematics	Computer sciences	Biological & agricultural sciences		
		Total	Chemistry	Physics & astronomy	Other physical sciences				Total	Biological sciences	Agricultural sciences
Richard Stockton College of NJ	35	14	9	4	1	5	0	0	6	6	0
Seton Hall University (NJ)	35	8	6	2	0	0	1	0	1	1	0
Bloomsburg University of Pennsylvania	35	3	3	0	0	0	2	2	6	5	1
Duquesne University (PA)	35	4	3	1	0	0	0	2	9	9	0
Carroll College (WI)	35	6	5	1	0	0	1	0	12	10	2
Northwest Missouri State University	35	7	6	1	0	0	0	1	13	9	4
University of San Francisco (CA)	35	7	5	2	0	0	0	2	7	7	0
Southern Connecticut State University	34	7	7	0	0	0	0	0	7	6	1
Washington & Jefferson (PA)	34	9	8	1	0	2	0	0	11	10	1
Baldwin-Wallace College (OH)	34	5	5	0	0	0	4	0	7	7	0
Albion College (MI)	34	10	8	2	0	3	1	0	10	10	0
St. Norbert College (WI)	34	12	11	1	0	0	1	1	7	6	1
Middle Tennessee State University	34	4	3	1	0	0	1	1	10	10	0
University of the South (TN)	34	4	4	0	0	2	3	2	11	11	0
University of Nevada-Las Vegas	34	4	2	2	0	3	0	3	6	6	0
Gonzaga University (WA)	34	3	2	1	0	0	1	1	8	8	0
West Chester University of Pennsylvania	33	8	7	1	0	1	0	2	7	7	0
East Carolina University (NC)	33	7	5	2	0	2	0	1	5	5	0
Weber State University (UT)	33	5	4	1	0	2	0	0	8	7	1
Moravian College (PA)	32	16	4	12	0	1	1	0	4	4	0
Illinois Wesleyan University	32	8	7	1	0	0	1	0	13	12	1
Harding University (AR)	32	3	2	1	0	0	2	1	5	4	1
Oral Roberts University (OK)	32	2	2	0	0	0	0	2	14	12	2
Walla Walla College (WA)	32	5	2	3	0	1	0	1	13	12	1
University of California, School of Medicine-La Jolla	32	9	6	3	0	2	0	1	11	11	0
University of Redlands (CA)	32	1	0	1	0	2	0	0	8	6	2
Lebanon Valley College (PA)	31	16	16	0	0	2	0	0	7	6	1
Slippery Rock University (PA)	31	3	2	1	0	1	1	3	11	10	1
GMI Engineering & Management Institute (MI)	31	3	0	3	0	0	0	1	0	0	0
University of Michigan-Flint College	31	13	9	4	0	0	0	2	7	7	0
College of St. Benedict (MN)	31	6	4	2	0	0	1	0	9	9	0
Coe College (IA)	31	6	5	1	0	1	2	0	5	5	0
Pittsburg State University (KS)	31	9	7	2	0	1	3	1	7	5	2
Centre College (KY)	31	8	7	1	0	1	2	0	12	11	1
University of Alabama-Huntsville	31	4	1	3	0	0	3	2	7	7	0
University of Wisconsin-Platteville	30	1	0	1	0	3	1	0	11	4	7
Birmingham-Southern College (AL)	30	5	4	1	0	0	0	1	5	5	0
Ithaca College (NY)	29	11	11	0	0	0	1	1	4	4	0
Trenton State College (NJ)	29	4	2	2	0	1	0	0	9	9	0
Hanover College (IN)	29	9	4	5	0	1	0	0	8	8	0
University of Wisconsin-Whitewater	29	4	3	1	0	1	0	0	3	3	0
Bemidji State University (MN)	29	6	4	2	0	3	0	0	11	10	1
Western Maryland College	29	5	4	1	0	2	0	1	9	8	1
Guilford College (NC)	29	3	1	2	0	3	2	0	7	7	0
Mercer University (GA)	29	4	3	1	0	0	3	0	4	4	0
Stetson University (FL)	29	6	4	2	0	0	0	0	5	5	0

See footnote at end of table.

Table 18. Baccalaureate-origin institutions of 10 or more 1991-95 science and engineering (S&E) doctorate recipients, ranked according to total S&E doctorates, by field of doctorate — Continued

Baccalaureate-origin institution	Field of doctorate								
	Psychology	Social science	Engineering						Total all fields[1]
			Total	Chemical	Civil	Electrical	Mechanical	Other engineering	
Richard Stockton College of NJ	5	4	1	0	0	1	0	0	51
Seton Hall University (NJ)	20	4	1	0	0	0	0	1	82
Bloomsburg University of Pennsylvania	14	7	1	0	0	0	0	1	95
Duquesne University (PA)	11	8	1	0	0	0	0	1	121
Carroll College (WI)	11	5	0	0	0	0	0	0	54
Northwest Missouri State University	7	5	2	0	0	1	0	1	83
University of San Francisco (CA)	14	4	1	0	0	0	0	1	100
Southern Connecticut State University	14	6	0	0	0	0	0	0	82
Washington & Jefferson (PA)	8	2	2	0	0	0	0	2	43
Baldwin-Wallace College (OH)	13	2	3	1	0	1	1	0	78
Albion College (MI)	2	3	5	2	0	3	0	0	52
St. Norbert College (WI)	10	1	2	0	0	1	0	1	44
Middle Tennessee State University	7	8	3	0	1	0	0	2	99
University of the South (TN)	6	6	0	0	0	0	0	0	64
University of Nevada-Las Vegas	12	4	2	0	0	1	1	0	59
Gonzaga University (WA)	9	6	6	1	0	1	1	3	65
West Chester University of Pennsylvania	9	6	0	0	0	0	0	0	122
East Carolina University (NC)	8	10	0	0	0	0	0	0	126
Weber State University (UT)	8	9	1	0	0	1	0	0	59
Moravian College (PA)	5	4	1	0	0	0	0	1	49
Illinois Wesleyan University	6	3	1	0	0	0	0	1	76
Harding University (AR)	15	5	1	0	1	0	0	0	104
Oral Roberts University (OK)	13	0	1	1	0	0	0	0	64
Walla Walla College (WA)	5	2	5	0	1	4	0	0	63
University of California, School of Medicine-La Jolla	3	2	4	1	1	1	0	1	36
University of Redlands (CA)	10	9	2	0	1	0	0	1	82
Lebanon Valley College (PA)	5	1	0	0	0	0	0	0	47
Slippery Rock University (PA)	7	5	0	0	0	0	0	0	98
GMI Engineering & Management Institute (MI)	1	1	25	1	0	6	6	12	36
University of Michigan-Flint College	6	3	0	0	0	0	0	0	45
College of St. Benedict (MN)	12	3	0	0	0	0	0	0	50
Coe College (IA)	5	10	2	0	0	0	0	2	48
Pittsburg State University (KS)	5	1	4	1	0	1	1	1	83
Centre College (KY)	5	1	2	0	1	0	0	1	53
University of Alabama-Huntsville	3	4	8	1	0	1	2	4	52
University of Wisconsin-Platteville	1	3	10	0	2	1	4	3	50
Birmingham-Southern College (AL)	15	1	3	0	0	1	0	2	60
Ithaca College (NY)	6	5	1	0	0	1	0	0	90
Trenton State College (NJ)	8	6	1	1	0	0	0	0	109
Hanover College (IN)	10	1	0	0	0	0	0	0	58
University of Wisconsin-Whitewater	15	6	0	0	0	0	0	0	74
Bemidji State University (MN)	3	5	1	0	0	1	0	0	67
Western Maryland College	6	4	2	0	0	0	0	2	44
Guilford College (NC)	8	5	1	0	0	1	0	0	61
Mercer University (GA)	13	5	0	0	0	0	0	0	68
Stetson University (FL)	10	7	1	0	0	0	0	1	79

See footnote at end of table.

Table 18. Baccalaureate-origin institutions of 10 or more 1991-95 science and engineering (S&E) doctorate recipients, ranked according to total S&E doctorates, by field of doctorate
— Continued

Baccalaureate-origin institution	Total S&E	Field of doctorate									
		Physical sciences				Earth, atmospheric, & oceanographic	Mathematics	Computer sciences	Biological & agricultural sciences		
		Total	Chemistry	Physics & astronomy	Other physical sciences				Total	Biological sciences	Agricultural sciences
Berea College (KY)	29	6	3	3	0	0	2	0	10	4	6
Arkansas State University	29	4	4	0	0	0	3	1	8	3	5
Central Washington University	29	2	2	0	0	2	3	1	5	4	1
University of Bridgeport (CT)	28	5	0	5	0	0	0	3	3	3	0
University of Hartford (CT)	28	7	2	5	0	0	1	1	3	2	1
Herbert H. Lehman College, CUNY	28	0	0	0	0	2	3	0	5	5	0
Augustana College (SD)	28	7	7	0	0	0	0	1	9	8	1
Washington and Lee University (VA)	28	7	5	1	1	2	0	0	7	7	0
Lamar University (TX)	28	4	2	2	0	1	2	2	5	5	0
Sam Houston State University (TX)	28	5	4	1	0	2	0	0	11	5	6
Seattle University (WA)	28	8	8	2	0	0	1	0	4	4	0
Willamette University (OR)	28	10	8	2	0	2	1	2	6	6	0
California State University-Stanislaus	28	10	9	1	0	1	0	0	6	5	1
SUNY-Empire State College	27	0	0	0	0	0	0	3	1	0	1
Wilkes University (PA)	27	4	3	1	0	1	3	2	7	6	1
Manchester College (IN)	27	4	4	0	0	0	2	0	7	6	1
St. Mary's College (IN)	27	7	7	0	0	0	0	0	10	10	0
Saginaw Valley State University (MI)	27	11	10	1	0	0	0	0	4	4	0
University of Minnesota-Morris	27	11	9	2	0	1	0	1	6	5	1
University of Nebraska-Kearney	27	4	3	1	0	1	0	0	11	7	4
Frostburg State University (MD)	27	7	5	1	1	1	2	1	10	9	1
Goucher College (MD)	27	3	3	0	0	2	2	0	8	8	0
Alabama A&M University	27	3	0	3	0	0	1	0	9	0	9
Southern University & A&M College (LA)	27	2	2	0	0	0	1	0	5	3	2
St. Anselm College (NH)	26	5	5	0	0	0	0	0	10	10	0
Rhode Island College	26	5	5	0	0	0	0	0	4	4	0
Kutztown University (PA)	26	5	4	1	0	1	1	0	8	8	0
Central College (IA)	26	6	3	3	0	0	1	2	7	7	0
Cornell College (IA)	26	8	8	0	0	2	1	1	5	4	1
Nebraska Wesleyan University	26	4	3	1	0	0	1	0	8	6	2
St. John's College (MD)	26	3	0	3	0	1	4	2	3	3	0
Randolph-Macon Women's College (VA)	26	3	3	0	0	0	0	0	5	5	0
University of Tennessee-Martin	26	4	3	1	0	0	0	1	18	7	11
Southwestern Oklahoma State University	26	10	8	2	0	1	0	0	4	4	0
Austin College (TX)	26	1	1	0	0	1	1	0	11	11	0
Sarah Lawrence College (NY)	25	0	0	0	0	0	0	0	4	4	0
St. Vincent College & Seminary (PA)	25	8	3	3	0	0	3	0	4	4	0
Ohio Northern University	25	6	6	0	0	0	1	0	8	8	0
Central Missouri State University	25	6	5	1	0	0	0	1	9	8	1
Emporia State University (KS)	25	8	3	2	0	0	1	1	8	5	3
Virginia Military Institute	25	5	3	2	0	0	0	0	1	0	1
North Carolina A&T State University	25	1	1	0	0	0	0	0	3	2	1
University of Arkansas-Little Rock	25	1	1	0	0	0	2	1	8	8	0
Angelo State University (TX)	25	9	4	4	0	1	0	4	9	7	2
East Texas State University	25	4	2	2	0	3	1	2	4	2	2
Seattle Pacific University (WA)	25	5	3	2	0	1	0	0	8	7	1
University of San Diego (CA)	25	2	2	0	0	0	0	0	7	7	0

See footnote at end of table.

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Table 18. Baccalaureate-origin institutions of 10 or more 1991-95 science and engineering (S&E) doctorate recipients, ranked according to total S&E doctorates, by field of doctorate
— Continued

Baccalaureate-origin institution	Field of doctorate								
	Psychology	Social science	Engineering						Total all fields[1]
			Total	Chemical	Civil	Electrical	Mechanical	Other engineering	
Berea College (KY)	1	9	1	0	0	0	0	1	60
Arkansas State University	6	5	2	0	1	1	0	0	114
Central Washington University	7	8	1	0	0	0	0	1	73
University of Bridgeport (CT)	6	4	7	0	0	3	1	3	59
University of Hartford (CT)	11	1	4	0	1	1	2	0	74
Herbert H. Lehman College, CUNY	15	3	0	0	0	0	0	0	70
Augustana College (SD)	3	5	3	0	1	0	0	2	72
Washington and Lee University (VA)	2	7	3	0	0	0	1	2	92
Lamar University (TX)	7	1	6	0	1	1	2	2	75
Sam Houston State University (TX)	5	5	0	0	0	0	0	0	91
Seattle University (WA)	9	1	5	0	0	2	1	2	59
Willamette University (OR)	2	4	1	0	0	0	0	1	58
California State University-Stanislaus	7	4	0	0	0	0	0	0	52
SUNY-Empire State College	13	10	0	0	0	0	0	0	58
Wilkes University (PA)	4	2	4	0	0	2	0	2	66
Manchester College (IN)	4	8	2	0	0	2	0	0	57
St. Mary's College (IN)	6	4	0	0	0	0	0	0	55
Saginaw Valley State University (MI)	1	10	1	0	0	0	0	1	34
University of Minnesota-Morris	7	1	0	0	0	0	0	0	37
University of Nebraska-Kearney	3	5	3	0	1	0	0	2	67
Frostburg State University (MD)	2	4	0	0	0	0	0	0	59
Goucher College (MD)	4	9	1	0	0	0	0	1	60
Alabama A&M University	1	11	2	0	0	0	0	2	47
Southern University & A&M College (LA)	4	7	9	0	2	4	1	1	73
St. Anselm College (NH)	4	6	1	0	0	1	0	0	49
Rhode Island College	13	4	0	0	0	0	0	0	69
Kutztown University (PA)	5	4	2	0	0	1	0	1	62
Central College (IA)	3	7	0	0	0	0	0	0	46
Cornell College (IA)	3	5	1	0	1	0	0	0	43
Nebraska Wesleyan University	5	7	1	0	0	0	0	1	49
St. John's College (MD)	3	10	0	0	0	0	0	0	50
Randolph-Macon Woman's College (VA)	14	3	1	0	0	0	0	1	40
University of Tennessee-Martin	2	0	1	0	0	0	0	1	64
Southwestern Oklahoma State University	7	2	2	0	0	1	0	1	70
Austin College (TX)	8	3	1	0	0	0	0	1	55
Sarah Lawrence College (NY)	14	7	0	0	0	0	0	0	57
St. Vincent College & Seminary (PA)	7	5	0	0	0	0	0	0	38
Ohio Northern University	3	0	7	0	3	0	0	4	44
Central Missouri State University	5	3	1	0	0	1	0	0	100
Emporia State University (KS)	7	3	0	0	0	0	0	0	100
Virginia Military Institute	0	4	15	0	6	2	2	5	34
North Carolina A&T State University	6	1	14	0	2	5	3	4	97
University of Arkansas-Little Rock	6	4	1	0	0	0	0	1	48
Angelo State University (TX)	1	2	0	0	0	0	0	0	52
East Texas State University	6	2	3	0	0	2	0	1	109
Seattle Pacific University (WA)	5	5	1	0	0	1	0	0	62
University of San Diego (CA)	11	5	0	0	0	0	0	0	50

See footnote at end of table.

Table 18. Baccalaureate-origin institutions of 10 or more 1991-95 science and engineering (S&E) doctorate recipients, ranked according to total S&E doctorates, by field of doctorate
— Continued

Baccalaureate-origin institution	Total S&E	Field of doctorate									
		Physical sciences				Earth, atmospheric, & oceanographic	Mathematics	Computer sciences	Biological & agricultural sciences		
		Total	Chemistry	Physics & astronomy	Other physical sciences				Total	Biological sciences	Agricultural sciences
Bennington College (VT)	24	0	0	0	0	0	0	1	5	4	1
Gordon College (MA)	24	6	6	0	0	1	1	0	4	4	0
Houghton College (NY)	24	3	3	0	0	0	3	0	9	8	1
New Jersey Institute of Technology	24	1	0	1	0	2	1	2	0	0	0
Rider University (NJ)	24	5	5	0	0	1	0	0	11	11	0
Muskingum College (OH)	24	7	7	0	0	1	1	1	8	8	0
St. Mary's College of Minnesota	24	5	4	1	0	0	1	0	10	9	1
Hastings College (NE)	24	6	3	3	0	0	1	0	8	7	1
Randolph-Macon College (VA)	24	4	4	0	0	0	0	1	6	6	0
Bob Jones University (SC)	24	6	5	1	0	0	5	1	6	6	0
University of West Florida	24	7	7	0	0	0	2	0	6	5	1
Northern Kentucky University	24	6	5	1	0	0	1	0	9	9	0
Jacksonville State University (AL)	24	2	2	0	0	0	0	0	6	4	2
Nicholls State University (LA)	24	3	2	1	0	0	1	3	8	5	3
University of Southern Colorado	24	3	2	1	0	1	1	2	7	7	0
Mills College (CA)	24	1	1	0	0	0	1	0	4	4	0
Point Loma Nazarene College (CA)	24	11	9	2	0	1	1	0	7	7	0
Hartwick College (NY)	23	5	5	0	0	2	0	0	10	10	0
Pace University (NY)	23	5	5	0	0	0	1	0	5	5	0
St. Peter's College (NJ)	23	4	3	1	0	0	1	2	4	4	0
Delaware Valley College (PA)	23	3	3	0	0	0	0	0	20	8	12
Marietta College (OH)	23	4	3	1	0	4	0	0	6	6	0
St. Xavier University (IL)	23	3	3	0	0	0	4	0	5	5	0
Washburn University of Topeka (KS)	23	5	2	3	0	0	0	0	8	7	1
Radford University (VA)	23	1	1	0	0	2	1	0	5	4	1
Transylvania University (KY)	23	5	5	0	0	0	1	0	5	5	0
University Of Central Arkansas	23	5	1	4	0	0	2	2	6	6	0
Tarleton State University (TX)	23	6	1	5	0	0	0	1	13	7	6
West Texas A&M University	23	0	0	0	0	1	1	0	10	5	5
California State University-San Bernardino	23	2	2	0	0	0	1	0	2	2	0
Wheaton College (MA)	22	3	3	0	0	1	1	0	8	8	0
Central Connecticut State University	22	8	5	3	0	0	1	0	4	3	1
St. John Fisher College (NY)	22	7	4	3	0	0	1	0	8	8	0
Rowan College of New Jersey	22	2	1	1	0	1	0	0	4	4	0
Kean College of New Jersey	22	7	6	1	0	2	0	0	2	2	0
Edinboro University of Pennsylvania	22	5	3	2	0	1	1	1	6	5	1
Kings College (PA)	22	12	11	1	0	0	1	0	4	3	1
Lincoln University (PA)	22	5	4	1	0	1	0	0	5	5	0
Anderson University (IN)	22	2	1	1	0	0	0	1	5	3	2
Elmhurst College (IL)	22	7	6	1	0	0	0	1	3	3	0
Roosevelt University (IL)	22	1	1	0	0	0	0	2	2	2	0
University of District of Columbia	22	6	5	1	0	0	0	1	1	1	0
Wofford College (SC)	22	7	6	1	0	1	2	0	[illegible]	7	0
Fisk University (TN)	22	4	4	0	0	0	0	1	11	11	0
Arkansas Technical University	22	5	5	0	0	1	0	0	10	9	1
Midwestern State University (TX)	22	6	5	1	0	2	0	2	7	7	0
Stonehill College (MA)	21	3	2	1	0	1	0	0	7	7	0

See footnote at end of table.

Table 18. Baccalaureate-origin institutions of 10 or more 1991-95 science and engineering (S&E) doctorate recipients, ranked according to total S&E doctorates, by field of doctorate
— Continued

Baccalaureate-origin institution	Field of doctorate								
	Psychology	Social science	Engineering						Total all fields[1]
			Total	Chemical	Civil	Electrical	Mechanical	Other engineering	
Bennington College (VT)	12	6	0	0	0	0	0	0	53
Gordon College (MA)	6	6	0	0	0	0	0	0	46
Houghton College (NY)	3	4	0	0	0	0	0	0	56
New Jersey Institute of Technology	0	0	18	2	2	8	1	7	32
Rider University (NJ)	3	3	1	0	0	0	0	1	61
Muskingum College (OH)	5	3	0	0	0	0	0	3	44
St. Mary's College of Minnesota	6	1	1	0	0	0	0	1	43
Hastings College (NE)	3	2	4	0	2	1	0	1	38
Randolph-Macon College (VA)	9	5	0	0	0	0	0	0	34
Bob Jones University (SC)	2	1	3	0	0	2	0	1	73
University of West Florida	3	4	2	0	0	0	1	1	55
Northern Kentucky University	5	3	0	0	0	0	0	0	40
Jacksonville State University (AL)	13	2	1	0	0	0	0	1	77
Nicholls State University (LA)	9	0	0	0	0	0	0	0	49
University of Southern Colorado	7	2	1	0	0	0	0	1	44
Mills College (CA)	14	4	0	0	0	0	0	0	49
Point Loma Nazarene College (CA)	3	1	0	0	0	0	0	0	41
Hartwick College (NY)	1	4	1	0	0	0	0	1	37
Pace University (NY)	7	4	1	0	0	0	0	1	48
St. Peter's College (NJ)	9	2	1	0	0	0	1	0	42
Delaware Valley College (PA)	0	0	0	0	0	0	0	0	30
Marietta College (OH)	3	4	2	1	0	1	0	0	38
St. Xavier University (IL)	7	4	0	0	0	0	0	0	41
Washburn University of Topeka (KS)	5	5	0	0	0	0	0	0	71
Radford University (VA)	5	8	1	0	0	0	0	1	73
Transylvania University (KY)	12	0	0	0	0	0	0	0	34
University Of Central Arkansas	4	2	2	0	0	2	0	0	79
Tarleton State University (TX)	3	0	0	0	0	0	0	0	44
West Texas A&M University	5	4	2	0	0	0	0	2	77
California State University-San Bernardino	9	9	0	0	0	0	0	0	46
Wheaton College (MA)	4	3	2	0	0	0	0	2	37
Central Connecticut State University	3	6	0	0	0	0	0	0	68
St. John Fisher College (NY)	3	3	0	0	0	0	0	0	31
Rowan College of New Jersey	10	5	0	0	0	0	0	0	89
Kean College of New Jersey	7	4	0	0	0	0	0	0	59
Edinboro University of Pennsylvania	4	4	0	0	0	0	0	0	80
Kings College (PA)	3	2	0	0	0	0	0	0	39
Lincoln University (PA)	5	5	1	0	0	1	0	0	30
Anderson University (IN)	10	4	0	0	0	0	0	0	55
Elmhurst College (IL)	5	4	2	0	0	1	0	1	58
Roosevelt University (IL)	7	10	0	0	0	0	0	0	58
University of District of Columbia	4	5	5	0	1	1	3	0	57
Wofford College (SC)	2	2	1	0	0	1	0	0	39
Fisk University (TN)	3	5	0	0	0	0	0	0	49
Arkansas Technical University	8	0	0	0	0	0	0	0	48
Midwestern State University (TX)	2	3	0	0	0	0	0	0	44
Stonehill College (MA)	7	3	0	0	0	0	0	0	35

See footnote at end of table.

Table 18. Baccalaureate-origin institutions of 10 or more 1991-95 science and engineering (S&E) doctorate recipients, ranked according to total S&E doctorates, by field of doctorate
— Continued

Baccalaureate-origin institution	Total S&E	Field of doctorate									
		Physical sciences				Earth, atmospheric, & oceanographic	Mathematics	Computer sciences	Biological & agricultural sciences		
		Total	Chemistry	Physics & astronomy	Other physical sciences				Total	Biological sciences	Agricultural sciences
Yeshiva University (NY)	21	2	1	1	0	0	2	2	4	4	0
Clarion University of Pennsylvania	21	7	5	2	0	0	2	0	8	8	0
East Stroudsburg University of Pennsylvania	21	6	5	1	0	0	0	0	9	7	2
Elizabethtown College (PA)	21	9	8	1	0	0	0	1	2	2	0
University of Evansville (IN)	21	7	5	2	0	0	0	0	3	2	1
Taylor University (IN)	21	1	1	0	0	0	0	1	6	6	0
University of Wisconsin-Parkside	21	9	5	4	0	0	0	0	4	4	0
Wartburg College (IA)	21	5	5	0	0	0	0	0	10	10	0
The Citadel (SC)	21	3	3	0	0	0	0	0	2	2	0
Agnes Scott College (GA)	21	2	2	0	0	0	2	0	4	4	0
Georgia Southern University	21	1	1	0	0	0	0	0	5	5	0
Jacksonville University (FL)	21	2	0	2	0	1	0	0	9	9	0
Thomas More College (KY)	21	5	2	3	0	0	0	0	12	11	1
Tennessee State University	21	1	0	1	0	1	1	0	6	6	0
Southeastern Louisiana University	21	4	3	1	0	0	0	1	9	6	3
Texas Woman's University	21	1	1	0	0	0	0	0	0	0	0
University of Colorado-Denver	21	1	1	0	0	0	2	0	4	3	1
Loma Linda University (CA)	21	1	0	1	0	0	0	0	8	6	2
University of Southern Maine	20	0	0	0	0	2	1	0	2	2	0
St. Michael's College (VT)	20	3	2	1	0	0	0	0	11	11	0
Bard College (NY)	20	4	3	1	0	0	0	0	4	4	0
College of Staten Island-CUNY	20	2	2	0	0	0	0	1	2	2	0
St. Bonaventure University (NY)	20	1	1	0	0	0	0	0	5	5	0
Rutgers State University-Newark (NJ)	20	8	7	1	0	1	0	0	3	2	1
William Paterson College of NJ	20	3	2	1	0	1	0	0	5	5	0
University of Wisconsin-Green Bay	20	2	2	0	0	1	1	0	7	6	1
Augsburg College (MN)	20	6	4	2	0	1	0	1	2	2	0
Hampton University (VA)	20	1	1	0	0	1	0	0	5	5	0
North Carolina Central University	20	4	3	1	0	0	0	0	4	4	0
Morehouse College (GA)	20	1	1	0	0	1	0	1	4	4	0
Carson-Newman College (TN)	20	1	1	0	0	0	1	0	5	4	1
Spring Hill College (AL)	20	8	8	0	0	0	0	0	4	3	1
Centenary College (LA)	20	1	1	0	0	1	4	1	2	2	0
Texas Lutheran College	20	12	12	0	0	0	0	0	5	5	0
Albertson College (ID)	20	1	1	0	0	0	4	1	6	4	2
Chapman University (CA)	20	0	0	0	0	1	0	0	0	0	0
Westmont College (CA)	20	4	1	3	0	0	1	0	3	3	0
Inter American University of Puerto Rico-San German	20	5	5	0	0	1	0	0	2	2	0
Dowling College (NY)	19	3	2	1	0	2	1	2	4	4	0
Long Island University-C.W. Post (NY)	19	0	0	0	0	0	2	0	5	5	0
Niagara University (NY)	19	3	3	0	0	0	0	0	6	6	0
Monmouth College (NJ)	19	6	5	1	0	0	0	0	5	5	0
Westminster College (PA)	19	3	1	2	0	1	1	1	1	1	0
North Central College (IL)	19	1	1	0	0	0	1	1	8	8	0
Aquinas College (MI)	19	1	1	0	0	0	0	0	6	6	0
Missouri Southern State College	19	4	2	2	0	0	1	2	2	1	1

See footnote at end of table.

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Table 18. Baccalaureate-origin institutions of 10 or more 1991-95 science and engineering (S&E) doctorate recipients, ranked according to total S&E doctorates, by field of doctorate — Continued

Baccalaureate-origin institution	Field of doctorate								
	Psychology	Social science	Engineering						Total all fields[1]
			Total	Chemical	Civil	Electrical	Mechanical	Other engineering	
Yeshiva University (NY)	6	2	3	0	0	2	0	1	40
Clarion University of Pennsylvania	3	1	0	0	0	0	0	0	74
East Stroudsburg University of Pennsylvania	5	0	1	1	0	0	0	0	75
Elizabethtown College (PA)	6	3	0	0	0	0	0	0	35
University of Evansville (IN)	5	3	3	0	0	1	0	2	63
Taylor University (IN)	11	2	0	0	0	0	0	0	48
University of Wisconsin-Parkside	3	4	1	0	0	0	0	1	34
Wartburg College (IA)	3	1	2	0	0	1	0	1	46
The Citadel (SC)	3	6	7	1	3	0	0	3	45
Agnes Scott College (GA)	9	4	0	0	0	0	0	0	44
Georgia Southern University	4	10	1	0	0	0	0	1	85
Jacksonville University (FL)	4	4	1	0	0	0	0	1	35
Thomas More College (KY)	0	1	3	0	0	2	0	1	29
Tennessee State University	6	1	5	0	1	0	2	2	51
Southeastern Louisiana University	5	2	0	0	0	0	0	0	63
Texas Woman's University	13	7	0	0	0	0	0	0	96
University of Colorado-Denver	5	3	6	0	1	2	0	3	34
Loma Linda University (CA)	12	0	0	0	0	0	0	0	55
University of Southern Maine	7	7	1	0	0	1	0	0	52
St. Michael's College (VT)	4	2	0	0	0	0	0	0	29
Bard College (NY)	6	6	0	0	0	0	0	0	48
College of Staten Island-CUNY	11	2	2	0	0	1	0	1	43
St. Bonaventure University (NY)	9	4	1	0	0	1	0	0	48
Rutgers State University-Newark (NJ)	3	3	2	0	0	0	1	1	31
William Paterson College of NJ	7	4	0	0	0	0	0	0	57
University of Wisconsin-Green Bay	0	8	1	0	1	0	0	0	44
Augsburg College (MN)	3	6	1	1	0	0	0	0	48
Hampton University (VA)	8	5	0	0	0	0	0	0	77
North Carolina Central University	3	9	0	0	0	0	0	0	61
Morehouse College (GA)	7	4	2	0	0	1	0	1	31
Carson-Newman College (TN)	9	3	1	0	0	1	0	0	63
Spring Hill College (AL)	4	3	1	1	0	0	0	0	35
Centenary College (LA)	6	4	1	0	0	0	1	0	31
Texas Lutheran College	3	0	0	0	0	0	0	0	32
Albertson College (ID)	6	2	0	0	0	0	0	0	31
Chapman University (CA)	16	3	0	0	0	0	0	0	41
Westmont College (CA)	7	5	0	0	0	0	0	0	50
Inter American University of Puerto Rico-San German	10	2	0	0	0	0	0	0	42
Dowling College (NY)	3	1	3	2	0	0	0	1	29
Long Island University-C.W. Post (NY)	9	3	0	0	0	0	0	0	41
Niagara University (NY)	6	3	1	0	0	0	1	0	54
Monmouth College (NJ)	2	2	4	0	0	3	0	1	41
Westminster College (PA)	7	5	0	0	0	0	0	0	54
North Central College (IL)	6	4	0	0	0	0	0	0	38
Aquinas College (MI)	8	4	0	0	0	0	0	0	38
Missouri Southern State College	7	3	0	0	0	0	0	0	45

See footnote at end of table.

Table 18. Baccalaureate-origin institutions of 10 or more 1991-95 science and engineering (S&E) doctorate recipients, ranked according to total S&E doctorates, by field of doctorate — Continued

Baccalaureate-origin institution	Total S&E	Field of doctorate									
		Physical sciences				Earth, atmospheric, & oceanographic	Mathematics	Computer sciences	Biological & agricultural sciences		
		Total	Chemistry	Physics & astronomy	Other physical sciences				Total	Biological sciences	Agricultural sciences
Bethel College (KS)	19	0	0	0	0	0	4	2	8	7	1
Fort Hays State University (KS)	19	2	1	1	0	1	1	0	6	4	2
Roanoke College (VA)	19	6	5	1	0	1	1	0	4	4	0
Winthrop University (SC)	19	3	3	0	0	0	0	1	5	5	0
Jackson State University (MS)	19	3	3	0	0	0	0	1	5	5	0
Millsaps College (MS)	19	2	2	0	0	0	0	1	4	4	0
Mississippi College	19	4	2	2	0	0	1	2	5	5	0
Whitworth College (WA)	19	5	4	1	0	0	0	0	5	5	0
Whittier College (CA)	19	0	0	0	0	3	0	0	3	3	0
Pontifical Catholic University-Puerto Rico	19	3	3	0	0	0	0	0	7	7	0
Manhattanville College (NY)	18	2	2	0	0	0	0	0	3	3	0
SUNY-College at Buffalo	18	0	0	0	0	0	0	0	3	3	0
Otterbein College (OH)	18	1	1	0	0	0	0	0	5	5	0
Lake Forest College (IL)	18	8	6	2	0	0	0	0	1	1	0
Monmouth College (IL)	18	3	3	0	0	1	0	1	9	7	2
Winona State University (MN)	18	4	4	0	0	0	1	1	4	3	1
St. Mary's College of Maryland	18	4	3	1	0	2	1	1	4	4	0
Western Carolina University (NC)	18	4	3	1	0	1	1	0	6	6	0
Northwestern State University (LA)	18	0	0	0	0	0	3	2	4	3	1
Scripps College (CA)	18	0	0	0	0	0	0	0	2	1	1
Pepperdine University (CA)	18	0	0	0	0	0	0	0	5	4	1
York College-City University of NY	17	4	4	0	0	0	1	0	4	4	0
Wagner College (NY)	17	2	2	0	0	0	0	0	6	6	0
Ramapo College of New Jersey	17	1	1	0	0	0	1	0	6	6	0
Mansfield University of Pennsylvania	17	4	2	2	0	0	2	0	3	3	0
Illinois Benedictine College	17	9	9	0	0	0	1	2	5	5	0
University of Maryland-Baltimore	17	1	1	0	0	0	0	0	10	10	0
University of North Carolina-Asheville	17	7	4	3	0	0	1	0	2	1	1
University of Tampa (FL)	17	1	1	0	0	0	0	0	7	7	0
Austin Peay State University (TN)	17	6	3	3	0	0	0	0	5	5	0
University of Houston-Clear Lake	17	2	1	1	0	0	0	2	2	2	0
Texas A&M University-Kingsville	17	3	2	1	0	1	0	2	2	1	1
University of Texas-Pan American University-Edinburg	17	2	2	0	0	0	1	0	4	3	1
University of Portland (OR)	17	3	1	2	0	1	0	1	4	4	0
Azusa Pacific University (CA)	17	1	1	0	0	0	0	0	3	3	0
Biola University (CA)	17	1	1	0	0	0	2	0	0	0	0
Pacific Union College (CA)	17	1	0	1	0	0	3	0	2	2	0
Assumption College (MA)	16	3	3	0	0	0	0	1	2	1	1
Eastern Nazarene College (MA)	16	8	4	4	0	0	2	0	4	4	0
Simmons College (MA)	16	1	1	0	0	1	0	1	7	7	0
U.S. Coast Guard Academy (CT)	16	0	0	0	0	2	2	1	1	1	0
Western Connecticut State University	16	3	3	0	0	1	0	0	5	4	1
Nazareth College of Rochester (NY)	16	1	1	0	0	0	0	0	4	4	0
Wells College (NY)	16	1	0	1	0	0	0	0	7	7	0
Susquehanna University (PA)	16	5	5	0	0	0	1	0	3	3	0
Capital University (OH)	16	2	2	0	0	0	1	1	3	3	0

See footnote at end of table.

Table 18. Baccalaureate-origin institutions of 10 or more 1991-95 science and engineering (S&E) doctorate recipients, ranked according to total S&E doctorates, by field of doctorate
— Continued

Baccalaureate-origin institution	Field of doctorate								
	Psychology	Social science	Engineering						Total all fields[1]
			Total	Chemical	Civil	Electrical	Mechanical	Other engineering	
Bethel College (KS)	1	4	0	0	0	0	0	0	36
Fort Hays State University (KS)	4	5	0	0	0	0	0	0	62
Roanoke College (VA)	1	5	0	0	0	0	0	0	31
Winthrop University (SC)	6	4	0	0	0	0	0	0	68
Jackson State University (MS)	4	5	1	0	0	1	0	0	80
Millsaps College (MS)	7	5	0	0	0	0	0	0	47
Mississippi College	3	3	1	0	0	1	0	0	98
Whitworth College (WA)	6	2	1	0	0	1	0	0	49
Whittier College (CA)	10	3	0	0	0	0	0	0	38
Pontifical Catholic University-Puerto Rico	7	1	1	0	0	0	0	1	44
Manhattanville College (NY)	7	6	0	0	0	0	0	0	42
SUNY-College at Buffalo	5	5	5	0	0	1	2	2	48
Otterbein College (OH)	10	1	1	0	0	0	0	1	42
Lake Forest College (IL)	5	4	0	0	0	0	0	0	35
Monmouth College (IL)	2	2	0	0	0	0	0	0	28
Winona State University (MN)	7	1	0	0	0	0	0	0	42
St. Mary's College of Maryland	3	3	0	0	0	0	0	0	27
Western Carolina University (NC)	3	1	2	1	0	0	0	1	68
Northwestern State University (LA)	5	4	0	0	0	0	0	0	48
Scripps College (CA)	11	5	0	0	0	0	0	0	43
Pepperdine University (CA)	8	3	2	1	0	0	0	1	49
York College-City University of NY	6	2	0	0	0	0	0	0	25
Wagner College (NY)	6	2	1	0	0	0	1	0	48
Ramapo College of New Jersey	8	1	0	0	0	0	0	0	32
Mansfield University of Pennsylvania	4	3	1	0	0	1	0	0	56
Illinois Benedictine College	0	0	0	0	0	0	0	0	29
University of Maryland-Baltimore	4	2	0	0	0	0	0	0	41
University of North Carolina-Asheville	3	4	0	0	0	0	0	0	29
University of Tampa (FL)	3	6	0	0	0	0	0	0	31
Austin Peay State University (TN)	1	3	2	0	0	0	0	2	46
University of Houston-Clear Lake	9	2	0	0	0	0	0	0	29
Texas A&M University-Kingsville	4	3	2	0	0	0	1	1	49
University of Texas-Pan American University-Edinburg	7	1	2	0	0	0	0	2	47
University of Portland (OR)	2	3	3	0	0	0	0	3	30
Azusa Pacific University (CA)	12	1	0	0	0	0	0	0	25
Biola University (CA)	14	0	0	0	0	0	0	0	50
Pacific Union College (CA)	10	1	0	0	0	0	0	0	36
Assumption College (MA)	6	4	0	0	0	0	0	0	33
Eastern Nazarene College (MA)	0	1	1	0	0	1	0	0	36
Simmons College (MA)	2	4	0	0	0	0	0	0	56
U.S. Coast Guard Academy (CT)	1	4	5	0	1	2	1	1	21
Western Connecticut State University	2	4	1	0	0	0	0	1	29
Nazareth College of Rochester (NY)	9	2	0	0	0	0	0	0	35
Wells College (NY)	3	4	1	0	0	0	0	1	31
Susquehanna University (PA)	4	3	0	0	0	0	0	0	35
Capital University (OH)	5	2	2	1	0	0	0	1	59

See footnote at end of table.

Table 18. Baccalaureate-origin institutions of 10 or more 1991-95 science and engineering (S&E) doctorate recipients, ranked according to total S&E doctorates, by field of doctorate
— Continued

Baccalaureate-origin institution	Total S&E	Field of doctorate									
		Physical sciences				Earth, atmospheric, & oceanographic	Mathematics	Computer sciences	Biological & agricultural sciences		
		Total	Chemistry	Physics & astronomy	Other physical sciences				Total	Biological sciences	Agricultural sciences
Indiana University-South Bend	16	2	1	1	0	0	2	0	3	3	0
Indiana University/Purdue University-Indianapolis	16	1	1	0	0	2	0	0	2	2	0
College of St. Catherine (MN)	16	3	3	0	0	0	0	0	4	4	0
Southwest State University (MN)	16	0	0	3	0	1	1	0	1	1	0
Loras College (IA)	16	4	0	4	0	0	0	1	3	3	0
Missouri Western State College	16	6	6	0	0	0	1	0	3	2	1
Shepherd College (WV)	16	4	4	0	0	0	0	0	0	0	0
Augusta College (GA)	16	6	4	2	0	0	0	0	3	2	1
Florida A&M University	16	2	1	1	0	0	0	1	4	1	3
Rollins College (FL)	16	3	2	1	0	2	1	0	3	3	0
Cameron University (OK)	16	5	5	0	0	0	2	1	0	3	3
St. Mary's University (TX)	16	3	3	0	0	0	1	0	4	4	0
Eastern New Mexico University	16	0	0	0	0	0	2	0	4	4	0
Linfield College (OR)	16	0	0	0	0	1	1	0	4	4	0
California State University-Bakersfield	16	1	1	0	0	0	0	0	4	4	0
Bridgewater State College (MA)	15	1	1	0	0	1	0	1	2	2	0
Framingham State College (MA)	15	3	3	0	0	1	0	1	0	3	1
North Adams State College (MA)	15	5	2	3	0	1	2	0	4	4	0
Merrimack College (MA)	15	4	4	0	0	0	0	0	4	4	0
Suffolk University (MA)	15	2	1	1	0	0	0	1	0	0	0
Bernard Baruch College-CUNY	15	0	0	0	0	0	0	1	4	4	0
New York Institute Of Technology	15	1	0	1	0	1	2	0	2	2	0
California University of Pennsylvania	15	2	2	0	0	0	0	1	0	0	1
Chatham College (PA)	15	3	3	0	0	0	0	0	7	7	0
Chestnut Hill College (PA)	15	3	3	0	0	0	0	0	5	5	0
Lock Haven University (PA)	15	1	1	0	0	0	0	1	6	5	1
University of Pittsburgh-Johnstown	15	4	4	0	0	0	0	0	5	4	1
Cedarville College (OH)	15	5	5	0	0	1	1	0	1	1	0
Lake Superior State University (MI)	15	0	0	0	0	3	0	1	3	3	0
Northland College (WI)	15	3	3	0	0	2	0	0	7	7	0
Washington College (MD)	15	2	2	0	0	1	0	1	4	4	0
West Virginia Wesleyan College	15	4	3	1	0	1	0	0	3	3	0
Bellarmine College (KY)	15	2	2	0	0	1	0	2	5	5	0
Christian Brothers University (TN)	15	2	2	0	0	0	1	0	5	5	0
Southwestern University (TX)	15	2	2	0	0	0	0	2	5	5	0
Carroll College (MT)	15	0	0	0	0	0	1	0	5	5	0
Western State College of Colorado	15	2	1	1	0	0	0	0	5	5	0
University of California-San Francisco	15	0	0	0	0	0	1	0	1	1	0
Widener University (PA)	14	2	2	0	0	0	0	2	2	2	0
St. Joseph's College (IN)	14	1	1	0	0	1	0	0	1	1	0
Berry College (GA)	14	4	4	0	0	1	0	1	4	3	1
Clark Atlanta University (GA)	14	0	0	0	0	0	0	0	3	3	0
West Georgia College	14	2	2	0	0	2	0	0	0	0	0
Barry University (FL)	14	1	1	0	0	0	1	0	4	4	0
Samford University (AL)	14	1	1	0	0	0	2	0	5	5	0
Troy State University (AL)	14	2	2	0	0	0	2	2	1	1	0
Louisiana State University-Shreveport	14	3	1	2	0	0	0	0	4	4	0

See footnote at end of table.

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Table 18. Baccalaureate-origin institutions of 10 or more 1991-95 science and engineering (S&E) doctorate recipients, ranked according to total S&E doctorates, by field of doctorate
— Continued

Baccalaureate-origin institution	Field of doctorate								
	Psychology	Social science	Engineering						Total all fields[1]
			Total	Chemical	Civil	Electrical	Mechanical	Other engineering	
Indiana University-South Bend	5	4	0	0	0	0	0	0	28
Indiana University/Purdue University-Indianapolis	3	5	3	0	2	1	0	0	34
College of St. Catherine (MN)	1	7	1	0	0	0	0	1	52
Southwest State University (MN)	2	2	0	0	0	0	0	0	25
Loras College (IA)	5	2	1	0	0	0	0	1	27
Missouri Western State College	1	3	0	0	0	0	0	0	32
Shepherd College (WV)	3	3	0	0	0	0	0	0	30
Augusta College (GA)	5	2	0	0	0	0	0	0	36
Florida A&M University	2	5	2	0	0	0	0	2	66
Rollins College (FL)	5	2	0	0	0	0	0	0	46
Cameron University (OK)	1	0	1	0	0	1	0	0	33
St. Mary's University (TX)	5	3	0	0	0	0	0	0	37
Eastern New Mexico University	5	3	2	0	0	0	0	2	52
Linfield College (OR)	3	1	0	0	0	0	0	0	37
California State University-Bakersfield	7	3	1	0	0	0	1	0	33
Bridgewater State College (MA)	5	5	0	0	0	0	0	0	56
Framingham State College (MA)	3	2	0	0	0	0	0	0	41
North Adams State College (MA)	1	2	0	0	0	0	0	0	26
Merrimack College (MA)	4	3	0	0	0	0	0	0	27
Suffolk University (MA)	4	3	0	0	0	0	0	0	29
Bernard Baruch College-CUNY	6	3	1	0	0	1	0	0	37
New York Institute Of Technology	4	0	5	0	1	1	2	1	22
California University of Pennsylvania	3	2	1	0	0	0	0	1	85
Chatham College (PA)	4	1	0	0	0	0	0	0	39
Chestnut Hill College (PA)	7	0	0	0	0	0	0	0	34
Lock Haven University (PA)	5	2	0	0	0	0	0	0	57
University of Pittsburgh-Johnstown	3	2	1	0	0	0	1	0	20
Cedarville College (OH)	5	2	0	0	0	0	0	0	34
Lake Superior State University (MI)	4	4	0	0	0	0	0	0	23
Northland College (WI)	0	2	1	0	0	0	0	1	23
Washington College (MD)	3	4	0	0	0	0	0	0	28
West Virginia Wesleyan College	5	2	0	0	0	0	0	0	33
Bellarmine College (KY)	1	4	0	0	0	0	0	0	31
Christian Brothers University (TN)	4	2	3	0	0	2	1	0	21
Southwestern University (TX)	7	1	0	0	0	0	0	0	35
Carroll College (MT)	4	3	2	0	0	0	1	1	23
Western State College of Colorado	3	1	0	0	0	0	0	0	28
University of California-San Francisco	6	5	1	0	0	1	0	0	34
Widener University (PA)	2	2	4	1	1	0	0	2	22
St. Joseph's College (IN)	6	2	0	0	0	0	0	0	23
Berry College (GA)	1	2	1	0	0	0	0	1	38
Clark Atlanta University (GA)	6	5	0	0	0	0	0	0	40
West Georgia College	5	5	0	0	0	0	0	0	47
Barry University (FL)	3	3	2	0	0	1	1	0	31
Samford University (AL)	5	1	0	0	0	0	0	0	81
Troy State University (AL)	4	1	2	0	0	0	0	2	66
Louisiana State University-Shreveport	6	0	1	0	0	0	0	1	24

See footnote at end of table.

Table 18. Baccalaureate-origin institutions of 10 or more 1991-95 science and engineering (S&E) doctorate recipients, ranked according to total S&E doctorates, by field of doctorate
— Continued

Baccalaureate-origin institution	Field of doctorate										
	Total S&E	Physical sciences				Earth, atmospheric, & oceanographic	Mathematics	Computer sciences	Biological & agricultural sciences		
		Total	Chemistry	Physics & astronomy	Other physical sciences				Total	Biological sciences	Agricultural sciences
McNeese State University (LA)	14	5	5	0	0	0	0	1	2	1	1
Tulane University-Newcomb College (LA)	14	0	0	0	0	4	0	0	3	3	0
Sul Ross State University (TX)	14	1	1	0	0	3	0	0	9	6	3
Prairie View A&M University (TX)	14	5	5	0	0	0	0	0	7	4	3
University of Texas-Tyler	14	6	6	0	0	0	0	1	4	4	0
American International College (MA)	13	2	2	0	0	0	2	0	5	5	0
Iona College (NY)	13	0	0	0	0	1	1	0	3	3	0
University of State of New York-Regents	13	0	0	0	0	1	1	1	0	0	0
Eastern College (PA)	13	1	1	0	0	0	0	1	3	3	0
Heidelberg College (OH)	13	2	2	0	0	0	0	4	4	3	1
Mount Union College (OH)	13	3	3	0	0	1	0	0	5	5	0
Principia College (IL)	13	3	3	0	0	1	0	2	2	1	1
Sangamon State University (IL)	13	1	1	0	0	0	0	1	2	2	0
Hillsdale College (MI)	13	4	2	2	0	0	1	0	2	2	0
Carthage College (WI)	13	7	7	0	0	0	0	0	2	2	0
Rockhurst College (MO)	13	2	2	0	0	0	0	0	3	3	0
Westminster College (MO)	13	0	0	0	0	1	0	0	6	5	1
Minot State University (ND)	13	2	2	0	0	1	1	0	3	3	0
Benedictine College (KS)	13	2	2	0	0	1	0	0	4	4	0
Columbia Union College (MD)	13	2	2	0	0	0	0	0	2	2	0
Hood College (MD)	13	0	0	0	0	0	0	0	7	7	0
Mount Saint Mary's College (MD)	13	2	2	0	0	0	2	0	2	2	0
Lynchburg College (VA)	13	1	1	0	0	1	0	0	1	1	0
West Virginia Institute of Technology	13	1	0	1	0	1	0	1	1	1	0
St. Andrews Presbyterian College (NC)	13	3	3	0	0	0	0	1	5	5	0
Presbyterian College (SC)	13	4	4	0	0	0	0	0	5	3	2
Columbus College (GA)	13	1	1	0	0	0	1	0	6	5	1
Asbury College (KY)	13	0	0	0	0	0	2	1	3	2	1
Georgetown College (KY)	13	2	2	0	0	0	1	0	7	7	0
Morehead State University (KY)	13	0	0	0	0	1	1	0	3	2	1
Southern College of the Seventh Day Adventists (TN)	13	4	0	4	0	0	2	0	5	5	0
Tougaloo College (MS)	13	1	1	0	0	0	0	0	3	3	0
Xavier University of Louisiana	13	0	0	0	0	0	0	0	8	7	1
Texas Southern University	13	3	3	0	0	0	0	0	4	3	1
Northwest Nazarene College (ID)	13	5	2	3	0	0	1	1	3	3	0
University of Colorado-Colorado Springs	13	4	3	1	0	0	1	0	3	3	0
California State University-unknown branch	13	1	0	1	0	1	0	1	3	1	2
Goddard College (VT)	12	0	0	0	0	0	0	1	1	1	0
Eastern Connecticut State University	12	0	0	0	0	0	0	0	5	5	0
Quinnipiac College (CT)	12	1	1	0	0	0	0	0	6	6	0
Geneva College (PA)	12	1	1	0	0	0	1	0	3	3	0
Messiah College (PA)	12	2	2	0	0	0	1	1	3	3	0
Philadelphia College of Textiles & Science (PA)	12	5	5	0	0	0	0	0	4	4	0
Ashland University (OH)	12	1	1	0	0	1	3	0	2	2	0
Wilmington College (OH)	12	1	1	0	0	0	0	0	5	3	2
Adrian College (MI)	12	2	2	0	0	0	0	0	3	2	1
Lawrence Tech University (MI)	12	6	6	0	0	0	0	2	0	0	0

See footnote at end of table.

Table 18. Baccalaureate-origin institutions of 10 or more 1991-95 science and engineering (S&E) doctorate recipients, ranked according to total S&E doctorates, by field of doctorate — Continued

Baccalaureate-origin institution	Field of doctorate								
	Psychology	Social science	Engineering						Total all fields[1]
			Total	Chemical	Civil	Electrical	Mechanical	Other engineering	
McNeese State University (LA)	5	0	1	1	0	0	0	0	44
Tulane University-Newcomb College (LA)	5	2	0	0	0	0	0	0	33
Sul Ross State University (TX)	0	1	0	0	0	0	0	0	27
Prairie View A&M University (TX)	0	1	1	0	0	1	0	0	32
University of Texas-Tyler	2	1	0	0	0	0	0	0	23
American International College (MA)	3	1	0	0	0	0	0	0	28
Iona College (NY)	4	4	0	0	0	0	0	0	41
University of State of New York-Regents	5	2	3	0	0	0	0	3	52
Eastern College (PA)	7	1	0	0	0	0	0	0	21
Heidelberg College (OH)	1	1	1	0	0	0	0	1	30
Mount Union College (OH)	2	2	0	0	0	0	0	0	25
Principia College (IL)	0	5	0	0	0	0	0	0	24
Sangamon State University (IL)	3	6	0	0	0	0	0	0	22
Hillsdale College (MI)	0	4	2	0	0	1	0	1	20
Carthage College (WI)	1	2	1	0	0	0	1	0	29
Rockhurst College (MO)	5	3	0	0	0	0	0	0	20
Westminster College (MO)	5	1	0	0	0	0	0	0	22
Minot State University (ND)	4	2	0	0	0	0	0	0	35
Benedictine College (KS)	4	2	0	0	0	0	0	0	29
Columbia Union College (MD)	6	3	0	0	0	0	0	0	33
Hood College (MD)	4	2	0	0	0	0	0	0	29
Mount Saint Mary's College (MD)	4	3	0	0	0	0	0	0	17
Lynchburg College (VA)	7	3	0	0	0	0	0	0	27
West Virginia Institute of Technology	0	0	9	3	2	2	0	2	22
St. Andrews Presbyterian College (NC)	3	1	0	0	0	0	0	0	32
Presbyterian College (SC)	4	0	0	0	0	0	0	0	26
Columbus College (GA)	4	1	0	0	0	0	0	0	38
Asbury College (KY)	5	2	0	0	0	0	0	0	54
Georgetown College (KY)	2	1	0	0	0	0	0	0	32
Morehead State University (KY)	6	2	0	0	0	0	0	0	58
Southern College of the Seventh Day Adventists (TN)	1	1	0	0	0	0	0	0	37
Tougaloo College (MS)	6	3	0	0	0	0	0	0	29
Xavier University of Louisiana	4	0	1	0	0	1	0	0	28
Texas Southern University	0	5	1	0	0	1	0	0	58
Northwest Nazarene College (ID)	2	0	1	0	0	0	0	1	30
University of Colorado-Colorado Springs	3	2	0	0	0	0	0	0	24
California State University-unknown branch	2	2	3	0	1	2	0	0	23
Goddard College (VT)	8	2	0	0	0	0	0	0	33
Eastern Connecticut State University	3	4	0	0	0	0	0	0	19
Quinnipiac College (CT)	5	0	0	0	0	0	0	0	24
Geneva College (PA)	5	1	1	0	0	1	0	0	30
Messiah College (PA)	1	3	1	0	0	0	1	0	32
Philadelphia College of Textiles & Science (PA)	1	0	2	0	0	1	0	1	13
Ashland University (OH)	4	1	0	0	0	0	0	0	27
Wilmington College (OH)	2	4	0	0	0	0	0	0	19
Adrian College (MI)	2	4	1	0	0	0	0	1	21
Lawrence Tech University (MI)	0	2	2	0	0	1	0	1	14

See footnote at end of table.

Table 18. Baccalaureate-origin institutions of 10 or more 1991-95 science and engineering (S&E) doctorate recipients, ranked according to total S&E doctorates, by field of doctorate
— Continued

Baccalaureate-origin institution	Total S&E	Field of doctorate									
		Physical sciences				Earth, atmospheric, & oceanographic	Mathematics	Computer sciences	Biological & agricultural sciences		
		Total	Chemistry	Physics & astronomy	Other physical sciences				Total	Biological sciences	Agricultural sciences
Alvernо College (WI)	12	1	1	0	0	0	0	0	1	1	0
Milwaukee School of Engineering (WI)	12	0	0	0	0	0	0	0	0	0	0
Dordt College (IA)	12	1	1	0	0	0	1	0	3	3	0
St. Ambrose University (IA)	12	2	2	0	0	0	0	0	2	2	0
Park College (MO)	12	2	2	0	0	0	0	1	1	1	0
William Jewell College (MO)	12	3	0	3	0	1	0	0	2	2	0
Baker University (KS)	12	4	3	1	0	0	0	1	1	0	1
Delaware State University	12	4	3	1	0	1	0	0	2	2	0
Salisbury State University (MD)	12	4	4	0	0	0	1	1	3	3	0
Emory and Henry College (VA)	12	1	1	0	0	0	0	0	0	0	0
Fairmont State College (WV)	12	2	1	1	0	0	2	0	3	3	0
Kennesaw State College (GA)	12	1	1	0	0	0	0	0	3	3	0
David Lipscomb University (TN)	12	3	3	0	0	0	1	0	4	4	0
Maryville College (TN)	12	2	2	0	0	0	0	1	3	3	0
University of North Alabama	12	4	4	0	0	0	1	1	2	1	1
Hardin-Simmons University (TX)	12	5	4	1	0	0	0	0	3	2	1
Texas A&M University-Corpus Christi	12	3	3	0	0	0	0	0	5	4	1
Rocky Mountain College (MT)	12	0	0	0	0	0	1	1	2	2	0
Claremont McKenna College (CA)	12	1	1	0	0	1	1	1	0	0	0
Antioch College West (CA)	12	0	0	0	0	0	0	0	1	0	1
University of New Hampshire-Keene State College	11	3	3	0	0	0	0	1	1	1	0
Marlboro College (VT)	11	2	0	2	0	0	0	0	5	4	1
Norwich University (VT)	11	1	1	0	0	0	1	1	2	2	0
Salem State College (MA)	11	0	0	0	0	3	0	0	3	3	0
John Jay College of Criminal Justice-CUNY	11	0	0	0	0	0	0	0	0	0	0
Marist College (NY)	11	2	2	0	0	0	1	0	0	0	0
SUNY-College at Old Westbury	11	3	3	0	0	0	0	0	1	1	0
Cedar Crest College (PA)	11	0	0	0	0	0	0	1	7	7	0
Lycoming College (PA)	11	3	0	3	0	0	0	1	1	1	0
Thiel College (PA)	11	4	3	1	0	0	0	1	2	2	0
Blackburn College (IL)	11	0	0	0	0	0	1	0	4	3	1
Chicago State University (IL)	11	1	1	0	0	0	0	0	4	4	0
Millikin University (IL)	11	3	3	0	0	0	0	1	5	4	1
Quincy University (IL)	11	0	0	0	0	0	0	0	2	2	0
University of Wisconsin-Superior	11	2	2	0	0	0	0	0	3	2	1
Graceland College (IA)	11	1	1	0	0	0	0	0	4	4	0
Maharishi International University (IA)	11	2	0	2	0	0	0	0	3	3	0
Drury College (MO)	11	1	1	0	0	0	0	0	3	3	0
University of Maryland-unknown branch	11	0	0	0	0	0	0	0	2	2	0
Morgan State University (MD)	11	0	0	0	0	0	0	0	2	2	0
Hampden-Sydney College (VA)	11	6	5	1	0	0	1	0	3	3	0
Delta State University (MS)	11	2	2	0	0	0	0	1	5	4	1
Henderson State University (AR)	11	1	1	0	0	0	1	1	1	1	0
Oklahoma Christian University of Science & Art	11	1	1	0	0	0	0	0	3	3	0
Houston Baptist University (TX)	11	0	0	0	0	0	0	0	4	4	0
New Mexico Highlands University	11	1	1	0	0	0	1	0	3	2	1

See footnote at end of table.

Table 18. Baccalaureate-origin institutions of 10 or more 1991-95 science and engineering (S&E) doctorate recipients, ranked according to total S&E doctorates, by field of doctorate
-- Continued

Baccalaureate-origin institution	Field of doctorate								
	Psychology	Social science	Engineering						Total all fields[1]
			Total	Chemical	Civil	Electrical	Mechanical	Other engineering	
Alverno College (WI)	5	4	1	1	0	0	0	0	26
Milwaukee School of Engineering (WI)	0	0	12	0	0	7	2	3	13
Dordt College (IA)	0	3	4	0	0	1	3	0	20
St. Ambrose University (IA)	6	2	0	0	0	0	0	0	27
Park College (MO)	3	5	0	0	0	0	0	0	35
William Jewell College (MO)	6	0	0	0	0	0	0	0	48
Baker University (KS)	4	2	0	0	0	0	0	0	27
Delaware State University	2	2	1	0	0	1	0	0	29
Salisbury State University (MD)	2	1	0	0	0	0	0	0	29
Emory and Henry College (VA)	3	7	1	0	0	0	0	1	31
Fairmont State College (WV)	4	1	0	0	0	0	0	0	31
Kennesaw State College (GA)	6	2	0	0	0	0	0	0	15
David Lipscomb University (TN)	3	0	1	0	0	0	0	1	58
Maryville College (TN)	3	3	0	0	0	0	0	0	18
University of North Alabama	1	3	0	0	0	0	0	0	55
Hardin-Simmons University (TX)	3	1	0	0	0	0	0	0	56
Texas A&M University-Corpus Christi	4	0	0	0	0	0	0	0	22
Rocky Mountain College (MT)	2	4	2	1	0	0	1	0	17
Claremont McKenna College (CA)	1	6	1	0	0	0	0	1	30
Antioch College West (CA)	10	1	0	0	0	0	0	0	15
University of New Hampshire-Keene State College	2	4	0	0	0	0	0	0	24
Marlboro College (VT)	3	1	0	0	0	0	0	0	12
Norwich University (VT)	2	0	4	0	1	1	1	1	12
Salem State College (MA)	3	2	0	0	0	0	0	0	34
John Jay College of Criminal Justice-CUNY	3	8	0	0	0	0	0	0	14
Marist College (NY)	5	2	1	0	1	0	0	0	27
SUNY-College at Old Westbury	3	4	0	0	0	0	0	0	17
Cedar Crest College (PA)	3	0	0	0	0	0	0	0	23
Lycoming College (PA)	3	2	1	0	0	0	0	1	30
Thiel College (PA)	1	2	1	1	0	0	0	0	26
Blackburn College (IL)	3	3	0	0	0	0	0	0	16
Chicago State University (IL)	4	2	0	0	0	0	0	0	78
Millikin University (IL)	0	2	0	0	0	0	0	0	24
Quincy University (IL)	6	3	0	0	0	0	0	0	28
University of Wisconsin-Superior	2	1	3	0	0	0	1	2	30
Graceland College (IA)	2	4	0	0	0	0	0	0	25
Maharishi International University (IA)	6	0	0	0	0	0	0	0	14
Drury College (MO)	6	1	0	0	0	0	0	0	33
University of Maryland-unknown branch	3	6	0	0	0	0	0	0	15
Morgan State University (MD)	4	5	0	0	0	0	0	0	56
Hampden-Sydney College (VA)	1	0	0	0	0	0	0	0	14
Delta State University (MS)	3	0	0	0	0	0	0	0	63
Henderson State University (AR)	3	1	3	0	0	1	0	2	39
Oklahoma Christian University of Science & Art	5	0	2	1	0	1	0	0	33
Houston Baptist University (TX)	6	1	0	0	0	0	0	0	37
New Mexico Highlands University	4	2	0	0	0	0	0	0	30

See footnote at end of table.

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Table 18. Baccalaureate-origin institutions of 10 or more 1991-95 science and engineering (S&E) doctorate recipients, ranked according to total S&E doctorates, by field of doctorate
— Continued

Baccalaureate-origin institution	Total S&E	Field of doctorate									
		Physical sciences				Earth, atmospheric, & oceanographic	Mathematics	Computer sciences	Biological & agricultural sciences		
		Total	Chemistry	Physics & astronomy	Other physical sciences				Total	Biological sciences	Agricultural sciences
University of La Verne (CA)	11	0	0	0	0	0	1	0	2	1	1
Fitchburg State College (MA)	10	1	1	0	0	0	0	0	4	3	1
Western New England College (MA)	10	2	2	0	0	0	0	0	1	1	0
The King's College (NY)	10	2	2	0	0	1	1	0	2	2	0
Long Island University-Brooklyn Campus	10	2	2	0	0	0	1	0	3	3	0
Long Island University-unknown branch	10	2	1	0	1	0	0	0	2	2	0
College of Saint Rose (NY)	10	2	2	0	0	0	0	0	2	2	0
Syracuse University-Utica College (NY)	10	1	1	0	0	2	0	0	2	2	0
Marywood College (PA)	10	0	0	0	0	0	0	0	6	6	0
Rockford College (IL)	10	3	3	0	0	0	2	0	3	2	1
Evangel College (MO)	10	4	4	0	0	0	1	1	0	0	0
Concordia Teachers College (NE)	10	1	0	1	0	0	1	1	2	2	0
Tabor College (KS)	10	2	2	0	0	0	1	0	4	3	1
Francis Marion University (SC)	10	2	1	1	0	0	0	0	4	4	0
Georgia College	10	2	1	1	0	0	0	0	4	4	0
Lee College (TN)	10	1	0	1	0	0	1	1	3	3	0
University of Montevallo (AL)	10	1	1	0	0	0	0	0	2	2	0
Oklahoma Baptist University	10	1	1	0	0	0	1	0	3	3	0
Oklahoma City University	10	0	0	0	0	0	0	0	2	2	0
St. Edward's University (TX)	10	3	3	0	0	0	0	2	1	1	0
Montana Tech of University of Montana	10	1	1	0	0	1	1	0	0	0	0
Regis University-Denver (CO)	10	0	0	0	0	0	1	0	2	2	0
St. John's College (NM)	10	0	0	0	0	1	1	1	2	2	0
Southern California College	10	0	0	0	0	0	0	0	2	2	0

See footnote at end of table

Table 18. Baccalaureate-origin institutions of 10 or more 1991-95 science and engineering (S&E) doctorate recipients, ranked according to total S&E doctorates, by field of doctorate
— Continued

Baccalaureate-origin institution	Field of doctorate								
	Psychology	Social science	Engineering						Total all fields[1]
			Total	Chemical	Civil	Electrical	Mechanical	Other engineering	
University of La Verne (CA)	7	1	0	0	0	0	0	0	29
Fitchburg State College (MA)	3	2	0	0	0	0	0	0	39
Western New England College (MA)	2	0	5	0	0	2	1	2	15
The King's College (NY)	2	1	1	0	0	0	0	1	22
Long Island University-Brooklyn Campus	2	2	0	0	0	0	0	0	24
Long Island University-unknown branch	3	3	0	0	0	0	0	0	18
College of Saint Rose (NY)	1	5	0	0	0	0	0	0	22
Syracuse University-Utica College (NY)	3	1	1	0	0	1	0	0	18
Marywood College (PA)	4	1	0	0	0	0	0	0	35
Rockford College (IL)	0	2	0	0	0	0	0	0	19
Evangel College (MO)	2	2	0	0	0	0	0	0	31
Concordia Teachers College (NE)	3	2	0	0	0	0	0	0	46
Tabor College (KS)	2	0	1	0	1	0	0	0	15
Francis Marion University (SC)	0	3	1	0	0	0	0	1	22
Georgia College	1	3	0	0	0	0	0	0	28
Lee College (TN)	2	2	0	0	0	0	0	0	37
University of Montevallo (AL)	2	5	0	0	0	0	0	0	45
Oklahoma Baptist University	4	1	0	0	0	0	0	0	93
Oklahoma City University	4	4	0	0	0	0	0	0	30
St. Edward's University (TX)	1	3	0	0	0	0	0	0	22
Montana Tech of University of Montana	0	0	7	3	1	1	0	2	12
Regis University-Denver (CO)	4	3	0	0	0	0	0	0	16
St. John's College (NM)	2	3	0	0	0	0	0	0	16
Southern California College	0	2	0	0	0	0	0	0	22

[1] Includes non-S&E fields.

SOURCE: National Science Foundation/SRS, Survey of Earned Doctorates

Table 19. Foreign baccalaureate-origin institutions of 10 or more 1991-95 science and engineering (S&E) doctorate recipients, by field of doctorate

Baccalaureate-origin institution	Field of doctorate									
	Total S&E	Physical sciences			Earth, atmospheric, & oceanographic	Mathematics	Computer sciences	Biological & agricultural sciences		
		Total	Physics & astronomy	Other physical sciences				Total	Biological sciences	Agricultural sciences
University of Alberta (Canada)	21	1	0	0	0	0	3	8	6	2
University of British Columbia (Canada)	27	2	1	0	1	4	0	7	5	2
McGill University (Canada)	53	10	4	0	1	3	2	12	12	0
University of Montreal (Canada)	12	4	3	0	0	0	0	4	4	0
Queens University at Kingston (Canada)	14	3	3	0	0	0	1	3	2	1
University of Toronto (Canada)	44	8	3	1	1	2	2	7	7	0
University of Waterloo (Canada)	21	4	1	0	1	4	1	4	4	0
University of Costa Rica	26	9	0	0	1	0	2	6	2	4
National Autonomous University of Mexico	48	5	3	0	4	8	0	15	10	5
Institute of Technology and Higher Education of Monterrey (Mexico)	21	4	1	0	0	0	0	6	2	4
University of Buenos Aires (Argentina)	25	4	4	0	0	1	0	9	2	7
University of Brasilia (Brazil)	15	2	0	0	2	0	1	4	2	2
Federal University of Rio De Janeiro (Brazil)	14	0	0	0	2	1	1	1	1	0
University of Sao Paulo (Brazil)	29	10	6	0	4	1	0	7	5	2
State University of Campinas (Brazil)	10	3	3	0	0	1	0	0	0	0
University of Chile (Chile)	17	0	0	0	0	4	0	4	3	1
National University of Colombia (Colombia)	14	1	0	0	4	3	0	3	1	2
Central University of Venezuela (Venezuela)	11	1	0	0	1	1	0	7	5	2
University of Simon Bolivar (Venezuela)	13	1	0	0	0	0	3	2	0	2
Dublin, University College (Republic of Ireland)	17	2	1	0	1	2	0	1	1	0
University of Cambridge (England)	21	5	4	0	1	1	1	5	5	0
University of London (England)	14	2	2	0	1	0	0	4	3	1
University of Oxford (England)	14	2	1	0	0	3	0	4	4	0
National Technical University of Athens (Greece)	45	3	2	0	2	2	8	2	1	1
National and Capodistrian University of Athens (Greece)	24	13	8	0	1	3	1	1	1	0
University of Patras (Greece)	28	4	2	0	0	4	4	2	2	0
Aristotelian University of Thessaloniki (Greece)	52	7	5	0	1	3	4	9	6	3
Eotvos Lorand University (Hungary)	12	4	3	0	1	4	2	0	0	0
University of Barcelona (Spain)	14	3	3	0	2	1	0	4	3	1
University of Zagreb (Croatia)	13	3	2	0	0	3	1	1	1	0
University of Belgrade (Serbia)	38	5	4	0	0	4	5	7	5	2
Xiamen University (China)	29	15	2	0	1	4	0	6	5	1
Jilin University (China)	50	18	6	0	2	7	2	8	8	0
Shandong Teachers University (China)	14	6	2	0	0	2	0	3	3	0
Zhejang University (China)	81	11	8	0	5	6	1	8	5	3
Shanghai Jiaotong University (China)	56	7	5	0	0	1	2	0	0	0
Fudan University (China)	173	67	37	0	0	17	8	54	53	1
Hangzhou University (China)	23	6	1	0	1	0	0	10	10	0
Harbin Institute of Technology (China)	19	2	0	0	0	3	2	0	0	0
Lanzhou University (China)	32	17	7	0	6	1	1	5	5	0
Nankai University (China)	64	29	13	0	0	7	0	19	19	0
Nanjing University (China)	86	26	14	0	12	5	4	25	22	3
Northwest University (China)	15	0	0	0	3	1	0	4	4	0
Beijing University (China)	284	113	59	1	26	20	4	64	63	1
Beijing Normal University (China)	43	21	12	0	1	4	0	13	11	2

See footnote at end of table.

Table 19. Foreign baccalaureate-origin institutions of 10 or more 1991-95 science and engineering (S&E) doctorate recipients, by field of doctorate — Continued

Baccalaureate-origin institution	Field of doctorate								
	Psychology	Social science	Engineering						Total all fields[1]
			Total	Chemical	Civil	Electrical	Mechanical	Other engineering	
University of Alberta (Canada)	2	4	3	1	0	2	0	0	40
University of British Columbia (Canada)	1	6	6	0	1	3	0	2	45
McGill University (Canada)	5	12	8	1	0	5	0	2	81
University of Montreal (Canada)	2	2	0	0	0	0	0	0	18
Queens University at Kingston (Canada)	1	6	0	0	0	0	0	0	24
University of Toronto (Canada)	9	8	6	2	0	0	1	3	75
University of Waterloo (Canada)	3	2	2	0	0	2	0	0	24
University of Costa Rica	0	4	4	1	1	1	0	1	33
National Autonomous University of Mexico	2	8	6	1	2	1	0	2	56
Institute of Technology and Higher Education of Monterrey (Mexico)	0	3	8	1	2	0	1	4	21
University of Buenos Aires (Argentina)	0	9	2	0	0	0	2	0	29
University of Brasilia (Brazil)	1	0	5	1	1	2	1	0	18
Federal University of Rio De Janeiro (Brazil)	0	3	6	0	1	0	5	0	18
University of Sao Paulo (Brazil)	0	4	3	1	1	0	0	1	34
State University of Campinas (Brazil)	0	0	6	2	0	3	0	1	11
University of Chile (Chile)	0	7	2	0	1	0	0	1	21
National University of Colombia (Colombia)	0	0	3	0	2	0	0	1	14
Central University of Venezuela (Venezuela)	0	0	1	0	0	0	1	0	12
University of Simon Bolivar (Venezuela)	0	0	7	2	0	2	0	3	13
Dublin, University College (Republic of Ireland)	1	3	7	4	0	2	0	1	18
University of Cambridge (England)	0	7	1	0	0	0	0	1	35
University of London (England)	0	5	2	0	0	0	0	2	24
University of Oxford (England)	0	5	0	0	0	0	0	0	27
National Technical University of Athens (Greece)	0	1	27	11	3	7	1	5	49
National and Capodistrian University of Athens (Greece)	0	4	1	0	0	0	0	1	29
University of Patras (Greece)	0	0	14	2	2	4	1	5	28
Aristotelian University of Thessaloniki (Greece)	1	4	23	9	4	4	2	4	55
Eotvos Lorand University (Hungary)	0	1	0	0	0	0	0	0	13
University of Barcelona (Spain)	0	2	2	0	0	1	1	0	21
University of Zagreb (Croatia)	2	0	3	0	0	2	0	1	14
University of Belgrade (Serbia)	0	0	17	0	3	10	1	3	43
Xiamen University (China)	0	2	1	0	0	1	0	0	31
Jilin University (China)	0	3	10	0	0	3	3	4	54
Shandong Teachers University (China)	0	2	1	0	0	0	1	0	16
Zhejiang University (China)	0	1	47	10	2	11	9	15	81
Shanghai Jiaotong University (China)	0	4	42	1	2	14	15	10	59
Fudan University (China)	0	7	20	1	1	11	0	7	178
Hangzhou University (China)	1	4	1	0	0	0	0	1	25
Harbin Institute of Technology (China)	0	2	10	0	1	1	6	2	20
Lanzhou University (China)	0	0	2	0	0	1	1	0	14
Nankai University (China)	0	2	7	0	0	5	0	2	70
Nanjing University (China)	2	6	6	1	1	2	0	2	88
Northwest University (China)	0	2	5	0	0	2	2	1	15
Beijing University (China)	2	18	38	2	3	13	8	12	300
Beijing Normal University (China)	0	2	2	0	0	0	0	2	55

See footnote at end of table.

Table 19. Foreign baccalaureate-origin institutions of 10 or more 1991-95 science and engineering (S&E) doctorate recipients, by field of doctorate — Continued

Baccalaureate-origin institution	Field of doctorate									
	Total S&E	Physical sciences			Earth, atmospheric, & oceanographic	Mathematics	Computer sciences	Biological & agricultural sciences		
		Total	Physics & astronomy	Other physical sciences				Total	Biological sciences	Agricultural sciences
Shanghai University of Science & Technology (China)	31	9	5	0	0	2	4	2	2	0
Shantung University (China)	19	6	1	0	0	4	0	6	5	1
Zhongshan University (China)	58	21	11	0	10	3	3	11	10	1
Sichuan University (China)	38	12	4	0	0	4	2	15	13	2
Tientsin University (China)	11	2	1	0	0	1	0	0	0	0
Tungchi University (China)	10	1	1	0	1	0	0	1	0	1
Wuhan University (China)	76	25	12	0	4	11	2	18	16	2
Beijing University of Aeronautics and Astronautics (China)	33	0	0	0	0	1	3	1	1	0
Shanghai Second Medical University (China)	11	1	0	0	0	0	0	9	9	0
Qinghua University (China)	143	31	21	0	1	6	8	8	8	0
Beijing Medical University (China)	40	5	0	0	0	0	0	34	34	0
East China University of Chemical Technology (China)	34	10	0	0	0	2	0	7	5	2
Nanjing Aeronautical Institute (China)	15	0	0	0	0	1	0	0	0	0
Dalian University of Science and Technology (China)	12	3	2	0	0	1	0	0	0	0
Shanghai Medical University (China)	47	5	0	0	0	0	0	41	41	0
South China Institute of Technology (China)	23	5	0	0	0	1	0	2	2	0
Huazhong University of Science & Technology (China)	33	6	5	0	1	3	0	3	2	1
East China Normal University (China)	46	15	6	1	1	10	1	6	6	0
Beijing Union Medical College (China)	12	0	0	0	0	0	0	11	11	0
Beijing Institute of Technology (China)	15	4	1	0	0	2	0	0	0	0
University of Science & Technology-Hefei (China)	85	31	18	0	6	6	4	10	10	0
Beijing Polytechnical University (China)	17	4	2	0	1	2	0	1	1	0
Nanjing Institute of Technology (China)	23	2	1	0	0	2	0	0	0	0
Xian Jiaotong University (China)	27	1	1	0	0	5	0	0	0	0
Beijing Agricultural University (China)	15	0	0	0	0	0	0	14	10	4
Northeast Normal University (China)	21	5	2	0	2	3	0	3	1	2
University of Science & Technology (Beijing, China)	44	16	10	0	1	1	1	3	3	0
East China Institute of Technology (China)	11	3	1	0	1	2	1	1	1	0
University of Science & Technology-unknown branch (China)	64	31	18	0	2	8	0	9	8	1
National Central University (Taiwan)	36	7	7	0	4	5	0	1	1	0
National Chengchi University (Taiwan)	27	0	0	0	0	6	2	0	0	0
Fu Jen Catholic University (China)	64	9	0	0	0	5	3	24	14	10
Soochow University (Taiwan)	22	4	1	0	0	3	2	4	4	0
Taipei Institute of Technology (Taiwan)	22	0	0	0	0	0	2	0	0	0
National Cheng Kung University (Taiwan)	165	19	8	0	2	1	4	2	2	0
National Chung Hsing University (China)	74	3	0	0	1	4	3	29	18	11
National Taiwan Normal University (Taiwan)	51	15	6	0	0	6	1	11	11	0
National Taiwan University	478	46	22	1	11	12	37	98	81	17
Tamkang University (Taiwan)	67	12	4	0	0	2	6	2	2	0
National Tsing Hua University (Taiwan)	122	25	13	0	0	7	5	4	4	0
Tunghai University (Taiwan)	44	2	0	0	1	1	3	13	12	1
National Chiao Tung University (Taiwan)	102	2	2	0	0	3	15	0	0	0
Taipei Medical College (Taiwan)	19	3	0	0	0	0	0	15	13	2
University of Chinese Culture (Taiwan)	33	3	2	0	5	0	2	12	6	6
Chun Yuan Christian University (Taiwan)	80	11	3	0	1	1	5	2	2	0

See footnote at end of table.

Table 19. Foreign baccalaureate-origin institutions of 10 or more 1991-95 science and engineering (S&E) doctorate recipients, by field of doctorate — Continued

Baccalaureate-origin institution	Field of doctorate								
	Psychology	Social science	Engineering						Total all fields[1]
			Total	Chemical	Civil	Electrical	Mechanical	Other engineering	
Shanghai University of Science & Technology (China)	0	0	14	0	0	5	3	6	35
Shantung University (China)	0	1	2	0	0	1	0	1	21
Zhongshan University (China)	0	5	5	1	0	0	2	2	59
Sichuan University (China)	0	1	4	0	0	3	0	1	44
Tientsin University (China)	0	0	8	0	1	3	1	3	11
Tungchi University (China)	1	1	5	0	4	0	0	1	10
Wuhan University (China)	1	10	5	0	0	2	1	2	77
Beijing University of Aeronautics and Astronautics (China)	0	0	28	1	0	[illegible]	12	11	33
Shanghai Second Medical University (China)	0	0	1	0	0	1	0	0	12
Qinghua University (China)	0	7	82	4	11	23	27	17	146
Beijing Medical University (China)	1	0	0	0	0	0	0	0	44
East China University of Chemical Technology (China)	0	0	15	10	0	0	3	2	35
Nanjing Aeronautical Institute (China)	0	0	14	0	0	2	7	5	15
Dalian University of Science and Technology (China)	0	0	8	1	1	1	2	3	12
Shanghai Medical University (China)	0	0	1	0	0	0	0	1	52
South China Institute of Technology (China)	0	0	15	8	0	4	1	2	24
Huazhong University of Science & Technology (China)	1	2	17	0	2	4	6	5	38
East China Normal University (China)	2	4	6	0	0	2	1	3	56
Beijing Union Medical College (China)	1	0	0	0	0	0	0	0	12
Beijing Institute of Technology (China)	0	0	9	0	0	2	5	2	16
University of Science & Technology-Hefei (China)	0	3	25	1	1	10	5	8	87
Beijing Polytechnical University (China)	0	0	9	0	2	3	4	0	18
Nanjing Institute of Technology (China)	0	2	17	1	1	8	4	3	23
Xian Jiaotong University (China)	0	1	20	1	0	7	6	6	27
Beijing Agricultural University (China)	0	0	1	0	0	0	0	1	15
Northeast Normal University (China)	0	4	4	0	1	0	0	3	23
University of Science & Technology (Beijing, China)	0	1	21	1	0	5	3	12	44
East China Institute of Technology (China)	0	0	3	0	0	1	2	0	11
University of Science & Technology-unknown branch (China)	0	2	12	1	0	6	2	3	65
National Central University (Taiwan)	0	0	19	2	2	4	7	4	41
National Chengchi University (Taiwan)	3	15	1	0	0	0	0	1	55
Fu Jen Catholic University (China)	3	11	9	0	1	3	0	5	85
Soochow University (Taiwan)	0	8	1	0	0	0	0	1	30
Taipei Institute of Technology (Taiwan)	0	0	20	3	2	8	2	5	24
National Cheng Kung University (Taiwan)	1	6	130	16	21	26	29	38	171
National Chung Hsing University (China)	1	14	19	1	10	1	6	1	80
National Taiwan Normal University (Taiwan)	6	1	11	0	1	6	2	2	103
National Taiwan University	10	49	214	21	27	68	65	33	571
Tamkang University (Taiwan)	1	5	39	3	7	10	7	12	82
National Tsing Hua University (Taiwan)	0	2	79	9	0	23	8	39	125
Tunghai University (Taiwan)	1	3	20	3	1	2	1	13	59
National Chiao Tung University (Taiwan)	0	3	79	0	5	58	7	9	105
Taipei Medical College (Taiwan)	0	1	0	0	0	0	0	0	29
University of Chinese Culture (Taiwan)	3	3	5	1	0	1	2	1	49
Chun Yuan Christian University (Taiwan)	1	1	58	5	5	19	15	14	92

See footnote at end of table.

Table 19. Foreign baccalaureate-origin institutions of 10 or more 1991-95 science and engineering (S&E) doctorate recipients, by field of doctorate — Continued

Baccalaureate-origin institution	Field of doctorate									
	Total S&E	Physical sciences			Earth, atmospheric, & oceanographic	Mathematics	Computer sciences	Biological & agricultural sciences		
		Total	Physics & astronomy	Other physical sciences				Total	Biological sciences	Agricultural sciences
National Taiwan Ocean University (Taiwan)	16	0	0	0	2	0	0	5	2	3
Feng Chia University (Taiwan)	40	1	0	0	0	1	2	0	0	0
National Taiwan Institute of Technology (Taiwan)	16	2	0	0	0	0	0	0	0	0
Tatung Institute of Technology (Taiwan)	23	1	0	0	0	0	3	0	0	0
Chung Cheng Institute of Technology (Taiwan)	15	0	0	0	0	1	1	0	0	0
Chinese University of Hong Kong	31	11	9	0	1	1	2	0	0	0
University of Hong Kong	24	8	5	0	1	4	2	2	2	0
Kyoto University (Japan)	24	6	4	0	0	0	0	2	2	0
University of Tokyo (Japan)	38	1	0	0	0	2	1	3	3	0
Ewha Women's University (Republic of Korea)	29	4	0	0	0	1	1	11	9	2
Inha University (Republic of Korea)	20	2	0	0	0	0	1	1	1	0
Korea University-Seoul	107	21	10	0	0	2	5	25	16	9
Kyungpook National University (Republic of Korea)	45	11	3	0	0	3	3	5	5	0
Pusan National University (Republic of Korea)	32	4	2	0	0	1	1	3	3	0
Seoul National University (Korea)	541	94	42	0	6	13	29	99	86	13
Sogang University (Republic of Korea)	34	13	7	0	0	2	5	0	0	0
Sung Kyun Kwan University (Republic of Korea)	48	5	1	0	0	2	0	4	4	0
Yonsei University (Korea)	150	22	10	0	5	7	4	18	17	1
Kyunghee University (Republic of Korea)	14	5	2	0	0	2	1	2	1	1
Yeung-Nam University (Republic of Korea)	14	0	0	0	0	1	0	2	1	1
Hankuk University of Foreign Studies (Republic of Korea)	25	0	0	0	0	0	0	0	0	0
Hanyang University (Korea)	100	15	4	1	0	0	3	2	2	0
Chonnam National University (Korea)	15	1	1	0	1	1	1	1	0	1
Kon-Kuk University (Republica of Korea)	11	2	1	0	0	0	0	6	2	4
National University of Singapore	29	4	3	0	0	2	4	3	3	0
Chulalongkorn University (Thailand)	41	3	0	0	3	1	4	7	5	2
Kasetsart University (Thailand)	17	0	0	0	0	0	0	12	3	9
University of Colombo (Sri Lanka)	23	14	5	0	0	4	0	4	4	0
University of Peradeniya (Sri Lanka)	34	13	6	0	0	3	0	11	6	5
Banaras Hindu University (India)	25	2	0	0	1	1	4	0	0	0
Bangalore University (India)	31	3	1	0	1	1	3	3	2	1
University of Bombay (India)	152	41	5	0	0	6	4	55	51	4
University of Calcutta (India)	52	9	9	0	1	3	2	8	7	1
University of Delhi (India)	67	17	6	0	0	2	4	11	11	0
Indian Institute of Technology, Bombay	79	3	2	0	3	1	14	1	1	0
Indian Institute of Technology, Delhi	36	0	0	0	0	1	12	0	0	0
Indian Institute of Technology, Kanpur	54	3	1	0	0	0	12	2	2	0
Indian Institute of Technology, Kharagpur	47	1	1	0	0	0	3	1	0	1
Indian Institute of Technology, Madras	71	4	4	0	1	1	17	0	0	0
Jadavpur University (India)	31	4	0	0	1	1	8	3	3	0
University of Kerala (India)	11	3	1	0	0	2	2	0	0	0
University of Madras (India)	57	17	5	0	0	7	6	7	6	1
University of Mysore (India)	12	1	1	0	0	0	1	1	1	0
Osmania University (India)	34	2	1	0	1	0	1	7	7	0
Panjab University (India)	15	1	0	0	3	1	0	3	3	0

See footnote at end of table.

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Table 19. Foreign baccalaureate-origin institutions of 10 or more 1991-95 science and engineering (S&E) doctorate recipients, by field of doctorate — Continued

Baccalaureate-origin institution	Field of doctorate								
	Psychology	Social science	Engineering						Total all fields[1]
			Total	Chemical	Civil	Electrical	Mechanical	Other engineering	
National Taiwan Ocean University (Taiwan)	0	0	9	0	3	2	2	2	17
Feng Chia University (Taiwan)	0	4	32	3	3	9	9	8	40
National Taiwan Institute of Technology (Taiwan)	0	0	14	2	2	4	4	2	16
Tatung Institute of Technology (Taiwan)	0	0	19	3	0	6	5	5	24
Chung Cheng Institute of Technology (Taiwan)	0	0	13	1	2	2	2	6	16
Chinese University of Hong Kong	5	9	2	0	0	2	0	0	44
University of Hong Kong	2	2	3	1	0	1	1	0	28
Kyoto University (Japan)	2	7	7	1	4	1	0	1	28
University of Tokyo (Japan)	2	18	11	2	2	2	0	5	43
Ewha Women's University (Republic of Korea)	4	6	2	0	0	2	0	0	66
Inha University (Republic of Korea)	0	2	14	3	0	2	4	5	20
Korea University-Seoul	1	27	26	3	2	9	4	8	130
Kyungpook National University (Republic of Korea)	1	7	15	1	1	10	2	1	49
Pusan National University (Republic of Korea)	3	4	16	1	1	1	10	3	42
Seoul National University (Korea)	7	92	201	20	18	57	40	66	638
Sogang University (Republic of Korea)	0	6	8	0	0	8	0	0	43
Sung Kyun Kwan University (Republic of Korea)	0	20	17	1	2	2	4	8	59
Yonsei University (Korea)	2	31	61	10	8	19	4	20	203
Kyunghee University (Republic of Korea)	0	1	3	0	1	0	0	2	21
Yeung-Nam University (Republic of Korea)	0	8	3	0	2	0	0	1	17
Hankuk University of Foreign Studies (Republic of Korea)	0	25	0	0	0	0	0	0	45
Hanyang University (Korea)	1	7	71	8	11	15	16	21	112
Chonnam National University (Korea)	0	3	7	4	0	1	0	2	20
Kon-Kuk University (Republica of Korea)	0	1	2	0	2	0	0	0	15
National University of Singapore	0	3	13	0	3	5	0	5	49
Chulalongkorn University (Thailand)	1	10	12	2	4	1	0	5	66
Kasetsart University (Thailand)	0	2	3	1	0	1	1	0	21
University of Colombo (Sri Lanka)	0	1	0	0	0	0	0	0	24
University of Peradeniya (Sri Lanka)	0	1	6	0	3	1	2	0	38
Banaras Hindu University (India)	0	1	16	7	0	1	0	8	33
Bangalore University (India)	1	5	14	0	2	5	4	3	36
University of Bombay (India)	4	13	29	12	2	7	3	5	191
University of Calcutta (India)	0	20	9	1	1	2	2	3	64
University of Delhi (India)	5	23	5	0	0	1	0	4	99
Indian Institute of Technology, Bombay	0	1	56	8	6	17	13	12	83
Indian Institute of Technology, Delhi	0	1	22	9	0	5	5	3	41
Indian Institute of Technology, Kanpur	0	0	37	6	1	10	7	13	60
Indian Institute of Technology, Kharagpur	0	0	42	5	3	9	16	9	51
Indian Institute of Technology, Madras	1	0	47	3	5	14	13	12	79
Jadavpur University (India)	0	0	14	5	2	3	1	3	38
University of Kerala (India)	0	0	4	0	1	1	2	0	13
University of Madras (India)	1	6	11	0	1	5	0	5	60
University of Mysore (India)	0	1	8	1	2	3	0	2	18
Osmania University (India)	0	3	20	6	3	7	0	4	32
Panjab University (India)	0	3	4	0	0	2	1	1	40

See footnote at end of table.

Table 19. Foreign baccalaureate-origin institutions of 10 or more 1991-95 science and engineering (S&E) doctorate recipients, by field of doctorate — Continued

Baccalaureate-origin institution	Field of doctorate									
	Total S&E	Physical sciences			Earth, atmospheric, & oceanographic	Mathematics	Computer sciences	Biological & agricultural sciences		
		Total	Physics & astronomy	Other physical sciences				Total	Biological sciences	Agricultural sciences
University of Poona (India)	23	4	0	0	1	2	3	2	2	0
Birla Institute of Technology and Science (India)	28	1	0	0	0	1	5	3	3	0
Regional Engineering College (India)	20	0	0	0	0	0	3	0	0	0
Anna University (India)	21	1	0	0	0	0	3	0	0	0
Tamil Nadu Agricultural University (India)	12	0	0	0	0	0	0	9	5	4
Indian Institute of Technology unknown branch	92	9	8	0	0	1	18	1	1	0
Pahlavi University (Iran)	13	0	0	0	0	1	0	4	3	1
University of Teheran (Iran)	24	1	0	0	0	2	1	4	2	2
University of Baghdad (Iraq)	14	1	1	0	1	0	0	3	2	1
Hebrew University of Jerusalem (Israel)	40	4	3	0	2	3	8	8	6	2
Technion-Israel Institute of Technology (Israel)	25	0	0	0	2	1	3	0	0	0
Tel Aviv University (Israel)	34	6	6	0	2	0	7	3	2	1
University of Jordan	20	3	2	0	1	0	1	3	1	2
Yarmouk University (Jordan)	26	2	1	0	0	3	6	3	3	0
Kuwait University	20	0	0	0	1	2	1	0	0	0
American University of Beirut (Lebanon)	43	2	0	0	1	2	1	8	6	1
University of Dhaka (Bangladesh)	24	5	1	0	1	0	1	2	1	1
Bangladesh University of Engineering and Technology	17	0	0	0	0	0	0	0	0	0
University of the Punjab (Pakistan)	18	2	2	0	1	0	0	5	5	0
University of Engineering & Technology (Pakistan)	18	0	0	0	0	0	1	0	0	0
Pakistan Agricultural University	36	0	0	0	0	0	0	26	3	23
King Abdul Aziz University (Saudi Arabia)	13	0	0	0	1	0	0	0	0	0
King Fahad University Petroleum & Minerals (Saudi Arabia)	20	1	1	0	0	3	2	0	0	0
King Saud University (Saudi Arabia)	40	1	0	0	1	0	1	9	2	7
University of Damascus (Syria)	16	1	0	0	0	1	1	2	0	2
University of the Bosphorus (Turkey)	38	6	6	0	0	2	1	0	0	0
Hacettepe University (Turkey)	18	2	2	0	0	1	3	4	4	0
Technical University of Istanbul (Turkey)	23	0	0	0	7	0	0	0	0	0
The Middle East Technical University (Turkey)	52	4	3	0	0	5	4	4	3	1
Bandung Technological Institute (Indonesia)	22	0	0	0	0	2	1	1	1	0
Gadjah Mada University (Indonesia)	12	1	0	0	0	0	0	3	1	2
University of the Philipines	55	13	3	0	1	4	0	15	9	6
University of Ghana	20	1	0	1	0	2	0	7	7	0
University of Science & Technology (Ghana)	12	1	0	0	1	0	0	4	3	1
Institut Agronomique et Veterinaire Hassan II (Morocco)	12	0	0	0	0	0	0	10	2	8
Ain Shams University (Egypt)	20	1	0	0	0	0	0	4	3	1
University of Alexandria (Egypt)	28	3	1	0	1	1	4	2	2	0
Cairo University (Egypt)	50	1	0	0	3	0	5	8	4	2
Military Tech College (Egypt)	10	0	0	0	0	0	1	0	0	0
University of Addis Ababa (Ethiopia)	24	2	1	0	2	4	0	6	2	4
University of Khartoum (Sudan)	17	2	0	0	1	0	0	7	6	1
University of Nairobi (Keyna)	23	0	0	0	2	0	0	11	1	10
University of Dar Es Salaam (Tanzania)	11	0	0	0	0	0	0	2	0	2

See footnote at end of table

Table 19. Foreign baccalaureate-origin institutions of 10 or more 1991-95 science and engineering (S&E) doctorate recipients, by field of doctorate — Continued

Baccalaureate-origin institution	Field of doctorate								
	Psychology	Social science	Engineering						Total all fields[1]
			Total	Chemical	Civil	Electrical	Mechanical	Other engineering	
University of Poona (India)	1	0	10	0	1	3	4	2	27
Birla Institute of Technology and Science (India)	0	1	17	4	1	7	2	3	39
Regional Engineering College (India)	0	0	17	0	0	7	4	6	23
Anna University (India)	0	0	17	4	1	6	2	4	22
Tamil Nadu Agricultural University (India)	0	2	1	0	0	0	0	1	12
Indian Institute of Technology-unknown branch	0	2	63	17	5	10	17	14	102
Pahlavi University (Iran)	0	3	5	0	3	0	1	1	14
University of Teheran (Iran)	0	1	15	1	2	9	1	2	26
University of Baghdad (Iraq)	0	3	6	1	1	2	0	2	15
Hebrew University of Jerusalem (Israel)	3	12	0	0	0	0	0	0	59
Technion-Israel Institute of Technology (Israel)	1	1	17	1	0	4	4	8	28
Tel Aviv University (Israel)	9	6	1	0	0	0	0	1	53
University of Jordan	1	2	9	0	3	3	1	2	24
Yarmouk University (Jordan)	0	2	10	0	7	2	0	1	34
Kuwait University	0	3	13	2	3	3	3	2	24
American University of Beirut (Lebanon)	0	6	22	0	9	7	1	5	56
University of Dhaka (Bangladesh)	0	13	2	0	0	1	0	1	30
Bangladesh University of Engineering and Technology	0	1	16	0	5	7	3	1	18
University of the Punjab (Pakistan)	0	5	3	0	0	1	0	2	17
University of Engineering & Technology (Pakistan)	0	0	17	2	4	5	2	4	20
Pakistan Agricultural University	0	7	3	0	0	0	0	3	36
King Abdul Aziz University (Saudi Arabia)	0	2	10	1	4	1	1	3	20
King Fahad University Petroleum & Minerals (Saudi Arabia)	0	1	13	3	5	3	0	2	22
King Saud University (Saudi Arabia)	0	19	9	3	3	2	0	1	56
University of Damascus (Syria)	0	1	10	0	5	1	3	1	19
University of the Bosphorus (Turkey)	1	9	17	0	0	9	4	4	46
Hacettepe University (Turkey)	1	0	7	0	0	2	0	5	20
Technical University of Istanbul (Turkey)	0	0	16	2	2	6	0	6	23
The Middle East Technical University (Turkey)	1	9	25	4	3	8	3	7	56
Bandung Technological Institute (Indonesia)	0	4	14	0	4	3	3	4	23
Gadjah Mada University (Indonesia)	0	5	3	0	1	0	0	2	15
University of the Philippines	1	13	8	1	3	1	1	2	68
University of Ghana	0	9	0	0	0	0	0	0	30
University of Science & Technology (Ghana)	0	3	3	1	1	0	0	1	18
Institut Agronomique et Veterinaire Hassan II (Morocco)	0	1	1	0	0	0	0	1	12
Ain Shams University (Egypt)	1	1	13	0	8	4	0	1	22
University of Alexandria (Egypt)	0	2	15	1	4	2	2	6	31
Cairo University (Egypt)	0	3	32	0	20	2	2	8	59
Military Tech College (Egypt)	0	1	8	0	2	5	0	1	10
University of Addis Ababa (Ethiopia)	0	4	6	1	1	1	2	1	25
University of Khartoum (Sudan)	0	6	1	0	0	1	0	0	24
University of Nairobi (Keyna)	0	9	2	0	1	0	0	1	28
University of Dar Es Salaam (Tanzania)	0	6	3	0	0	1	0	2	13

[1] Includes non-S&E fields.

SOURCE: National Science Foundation/SRS, Survey of Earned Doctorates

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Table 20. Top 25 foreign baccalaureate-origin institutions of 1994 non-U.S. science and engineering (S&E) doctorate recipients, ranked according to total S&E doctorates, by field of doctorate

Baccalaureate-origin institution	Total S&E	Total sciences	Field of science							Total engineering
			Physical sciences[1]	Mathematics	Computer sciences	Biological sciences	Agricultural sciences	Psychology	Social sciences	
Seoul National University (Korea)	434	266	85	9	23	71	9	3	66	168
National Taiwan University	373	201	42	12	28	67	12	8	34	172
Beijing University (China)	231	201	119	14	4	49	1	2	12	30
Fudan University (China)	138	121	53	13	7	41	0	0	7	17
National Cheng Kung University (Taiwan)	130	28	18	1	2	2	0	0	5	102
Yonsei University (Korea)	124	80	25	6	4	16	1	1	27	44
Qinghua University (China)	121	52	28	4	8	7	0	0	5	69
University of Bombay (India)	118	93	36	5	3	39	2	2	6	25
National Tsing Hua University (Taiwan)	91	34	19	7	4	4	0	0	0	57
Korea University-Seoul	88	69	18	1	5	15	9	0	21	19
Hanyang University (Korea)	86	24	13	0	3	2	0	0	6	62
National Chiao Tung University (Taiwan)	82	21	2	3	13	0	0	0	3	61
University of Science & Technology-Hefei (China)	72	52	32	4	4	9	0	0	3	20
Indian Institute of Technology-unknown branch	72	18	6	0	10	1	0	0	1	54
Nanjing University (China)	68	63	29	5	4	18	1	0	6	5
Zhejiang University (China)	65	28	12	6	1	5	3	0	1	37
Wuhan University (China)	62	58	26	8	1	11	2	1	9	4
University of Science & Tech-unknown branch (China)	62	50	32	8	0	8	1	0	1	12
Indian Institute of Technology-Bombay	60	19	4	1	13	1	0	0	0	41
University of Delhi (India)	59	56	15	2	3	11	0	4	21	3
Indian Institute of Technology-Madras	59	20	5	1	13	0	0	1	0	39
Nankai University (China)	58	51	26	7	0	16	0	0	2	7
Chun Yuan Christian University (Taiwan)	58	16	8	0	5	1	0	1	1	42
National Chung Hsing University (China)	58	44	3	4	2	16	8	0	11	12
Tamkang University (Taiwan)	55	26	11	1	0	2	0	1	5	29
Total, top 25	2,822	1,691	667	122	164	412	49	24	253	1,131
Total, all foreign institutions	9,177	6,087	1,803	537	422	1,390	483	178	1,276	3,090
Top 25 as a percent of all institutions	30.8%	27.8%	37.0%	22.7%	38.9%	29.6%	10.1%	13.6%	19.8%	36.6%

[1] Includes earth, atmospheric, and oceanographic sciences.

SOURCE: National Science Foundation/SRS, Survey of Earned Doctorates.

Appendix C.

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APPENDIX C. BIBLIOGRAPHY

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